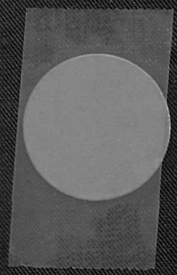

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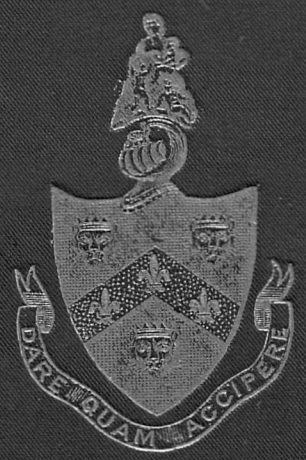

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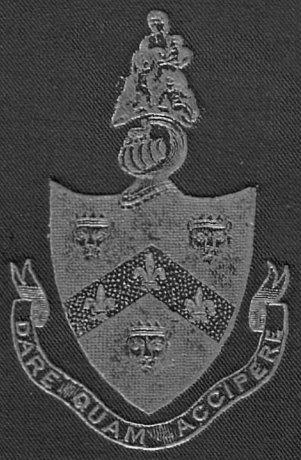

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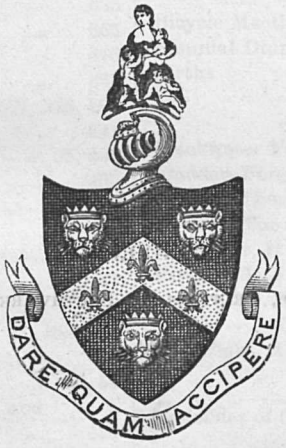

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold, will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

January.

Sat. 8.—Mr. Golding-Bird's take-in; Drs. E. B. Dowsett and T. P. Berry; Cl. G. E. Richmond.
Clinical Lecture by Dr. Taylor.
G.H.R.F.C., I., Old Leysians, home.
II., Hampstead Wanderers, away.
G.H.A.F.C., I., Croydon Park, home.
U.H.H.&H., Ordinary run.

Mon. 10.—Clinical Lecture by Mr. Lucas.

Tues. 11.—Disguysed Minstrels at Bromley.

Wed. 12.—Mr. Howse's take-in; Drs. T. H. Body and B. Isaac; Cl. P. Turner.
G.H.A.F.C., II., Enfield Wednesday, away.

Fri. 14.—Disguysed Minstrels at Matinee Theatre, Langham Place, W.

Sat. 15.—G.H.R.F.C., I., Croydon, home.
II., St. Bart.'s, away.
G.H.A.F.C., I., Weybridge, away.
II., Surbiton, home.
U.H.H.&H., Match v. Thames H. & H. at Roehampton.

Wed. 19.—Mr. Davies-Colley's take-in; Drs. E. A. Longhurst and R. Mitchell; Cl. C. R. Hodgson.
G.H.R.F.C., I., Streatham, home.
G.H.A.F.C., II., Royal College Science, away.
Disguysed Minstrels at Sutton.

Sat. 22.—1.30 p.m., Clinical Lecture by Dr. Taylor.
G.H.R.F.C., I., Rosslyn Park, away.
II., L. & W. Bank, home.
G.H.A.F.C., I., Cheshunt, home.
II.,
G.H.P.P.S.—Clinical evening.

Guy's Hospital Gazette,

JANUARY 8, 1898.

1897.

AS we in Guy's look back on the events of last year, notwithstanding the wonderful sights and scenes which will always stamp in our minds the splendour of the British Empire and the virtues and graces of our sovereign lady, the Queen, we are conscious that the same year has stamped on our own institution, even more than on the other splendid organs of charity of which our country boasts, a change which must radically transfigure the whole aspect of its work. Shakespeare speaks of the seven ages of man; a future historian will perhaps speak of the seven ages of Guy's. But of these we can at present number only three, and the third stage in the life of the hospital was attained only in the year that is now past. In 1724 it was conceived and born; in 1829 it attained puberty; in 1897 it started in young adult life. The opening of Hunt's building some seventy years ago did indeed mark a new epoch in its life. That epoch is now passed away, and is merged into the further manhood marked by the many changes of the diamond jubilee year.

It is of no use to recount the falling off of income which necessitated in 1886 the closing of 150 beds. It is only repeating recent history to reiterate the fact that when the Prince of Wales was elected president of the hospital and made his appeal for funds on its behalf, the expenditure even on the 500 beds still open was £42,000 annually, while the estates and legacies of the hospital were bringing in only £20,000 of this amount.

By virtue of this appeal, nearly one-half of the original amount required for the re-endowment fund has been raised, and the sustentation fund of annual subscription has been largely augmented to maintain the hospital, pending completion of the re-endowment. In the middle of last year, accordingly, the Governors felt them-

selves justified in opening the new "Queen Victoria" ward in Hunt's house, as an obstetric ward, accommodating forty patients. This was only a beginning in the full awakening of the hospital, which it was thought would take a long time to be completed. But to the surprise of most of us, Christmas brought more good cheer to the financial offices in Guy's than it has for many years past, and a cheque for £6,600, as the first instalment of an annual subscription for that amount from the Prince of Wales' Diamond Jubilee Fund, at once gave the opportunity for opening the remaining wards. Indeed, this was the one condition on which the gift was made; and the Governors have now no option left, unless they refuse the gift, but to re-open the closed beds at the earliest opportunity. It is this that above all marks for us the close of the last year,—the prospect, for the last twenty years a purely visionary prospect, of the whole of the hospital being restored to full activity with all necessary improvements, and a standing balance to boot at the banker's. Indeed the Treasurer declares that it is the first time within the memory of man that the hospital has ended the year with a balance standing to its account on the credit side.

While we exult in this our glory, let it not be supposed that our young adult, about to enter within a few years on the prime of life, has no further financial difficulties to face. On the contrary, the re-opening of these 150 beds means a further addition of some £9,000 to our annual expenditure, of which the Prince's fund will supply only a possible £6,000 a year. We have, therefore, to rely on the public to provide the additional £3,000 a year, as well as the former amount, for which we have been throughout appealing.

With this change of financial and material prospects, has come during the past year a change of officers. Mr. Lushington, after a long period of devoted and useful service to the hospital, retired last Easter from the treasurer's house, while Mr. Cosmo Bonsor has thrown his indomitable energy into the work of the treasurership, and has acquired immortality in the annals of Guy's and in the memories and affections of all present Guy's men.

So much for the constellations. But the lesser lights have also twinkled, and Mr. Toms, of the superintendent's office, has retired, and Mr. Beckwith rules in his place; while the presence of the ubiquitous Mr. Chapman, one of the oldest and most trusty servants of the hospital, who with his son has long presided over the fortunes of the drain-pipes and other works, will be found wanting, for Mr. Pelling, of Brixton, has now taken over his duties.

The chaplain, at the same time, after long and unselfish service in the duties of his office, has fallen in with a scheme passed by the Governors as most likely to promote the spiritual welfare of the hospital and its inmates, by which the Bishop of Rochester is appointed its chaplain, and his work will be done by two clergymen resident in the St. Saviour's Clergy House, which in the summer of last year established itself almost opposite our gates, in the house once occupied officially by the treasurer of the old St. Thomas's Hospital. This again marks an epoch in the history of Guy's, not merely in the retirement under a spirit of duty of one of its most zealous officers, but in the further prospect which the change in the chaplaincy opens out.

In the fabric of the hospital, the re-arrangement of the post-mortem room, the adornment and rules for use of the park, the painting up of the front square and decoration of the new offices and dressers' rooms have been the most conspicuous changes.

In the nursing world similar, almost equally revolutionary changes have been either made or initiated. Auntie, or as some called her, Mrs. Keogh, has died, after presiding over the surgery at night for a quarter of a century. Many of the nurses have gone out into the world and will long be remembered. Two sisters of Martha and the sisters of Mary and Patience wards, and a sister from the theatre (Nurse Palmer) have left us; the sistership in the theatre has been abolished and an additional night-sister has been appointed. The Greek war caused a flutter of excitement, both in the nursing world and in the school; of the four nurses who went out from Guy's, two have been given sisters' caps on their return, while of the four Guy's men who gave their services, one at least held a high position. But domestic affairs have been of far greater importance, conspicuous amongst which have been the midnight meal, the change of uniform, the continued success of the Choral Society and Bicycle Club, the appointment of eight additional probationers for night duty, thus increasing the number of the nursing staff to 158 (which is shortly to be expanded by thirty), the additional holidays and hours off duty, which have involved a complete rearrangement of the routine in every ward—an almost superhuman task for the office—and finally, the conclusion of the arrangements for a nursing home.

Passing on to old Guy's men who have died, we note Dr. Braxton Hicks, the esteemed obstetric physician on our consulting staff, Dr. Salter, F.R.S., for long our dental surgeon, Surgeon-Major Manser, I.M.S., who died from the plague, which he was combating, and Dr. Churton, of Birkenhead, who died at 84, the oldest coroner in the country.

Sir Samuel Wilks, re-elected P.R.C.P., has received a baronetcy, and Sir Henry Burdett knighthood, while Mr. Fripp has been appointed Surgeon in Ordinary to the Prince of Wales.

Of the school staff, Dr. Hamilton has exchanged Guy's for Johannesberg, and Mr. Handley fills his place. Mr. Targett is now obstetric, Mr. G. B. Smith ophthalmic, and Mr. Fagge surgical registrar; and Mr. Panting has been appointed demonstrator in chemistry and physics. Mr. Fripp has become an assistant surgeon.

The advance the school has made has been chiefly shown in the opening of the new school buildings, with the splendid lecture theatre and laboratories, now in constant use, an institute fit to challenge comparison with most of those abroad. At the same time a compulsory course of bacteriology makes the progress of the teaching in the right direction, while the creation of 150 new clinical appointments has given further employment for men under the five year's regulations. The entry of students, as compared with those of other hospitals, is most encouraging, our numbers having increased while those of most schools have diminished, as a result of the longer course; and it is a marvel that with all the publication of our poverty and closed beds, more men should not have fought shy of Guy's than has been the case. The gold medals and scholarships, both in medicine and surgery, which Mr. Fagge, a former editor of the GAZETTE, has recently won, are witness of the character of the work at Guy's.

In the matter of sport, we won the Association Cup, beating St. Bartholomew's by two goals to one, and London by a goal to nil. We only just lost the Rugby Cup to St. Thomas's by one try. We again won the Cricket Cup, beating University after an exciting match by two wickets. We carried off the Water-polo cup again, beating St. Thomas's by eleven goals to nil; the Bicycle Shield; and the Cross-country Cup (for the seventh year in succession), but were beaten in the Lawn Tennis Cup Ties and in the Athletic Sports.

The Disguysed Minstrels have, after two successful seasons, won some £650 odd for the benefit of the hospital, and are embarking on a new season, while the foundation of a choral society has given an outlet for music of a different variety.

Finally, we may mention that the editorship of this journal has fallen into new hands, that a complete office and furniture has actually become a reality, and that it has gone into mourning for the unexpected and regrettable decease of its amusing younger brother, the *Guyoscope*.

Taking it all round, then, we have every reason to be more than satisfied with the achievements of the hospital and school, and with their position at present. It is obvious that their continued prosperity depends on the continued exertion of all persons concerned in the various departments to which reference has been made; and it is with this intention that we can cordially bid welcome to the New Year, 1898!

The Re-endowment Fund.

THE Treasurer has received from the Council of the Prince of Wales's Hospital Fund for London the sum of £7,912 10s., of which £1,312 10s. is a special donation in celebration of the Queen's Diamond Jubilee. The remaining £6,600 represents the first payment of the sum which has been allocated to Guy's out of the income of the Fund. This means that this hospital will receive £6,600 a year so long as the income of the Prince's Fund is maintained at its present amount.

The Council of the Fund have, however, made this grant upon the strict condition that all the empty beds in this hospital shall be re-opened forthwith for the services of the poor, and a special meeting of the Governors has been convened for the 12th inst., to consider the situation.

Notwithstanding this handsome donation and promise of future support, it will at once be recognised that the financial necessities of the hospital are not disposed of thereby, because, apart from the capital expenditure involved in the re-opening of the beds, the annual cost of their up-keep will exceed the grant from the Prince's Fund. But according to the official statement, the grant has been made as an *encouragement* to the Authorities of Guy's to place the fullest resources of the hospital at the service of those who need them, and it may be taken for granted that encouragement of this kind will not be barren of great results.

Papers by Guy's Men.

A fatal case of Thyroidectomy. By F. T. Paul, F.R.C.S.—*British Medical Journal*, 1st January, 1898.

Antipneumococcic Serum. By J. W. Washbourn.—*British Medical Journal*, 25th December, 1897.

Christmas Decorations in the Wards.

BY AN IMPARTIAL SPECTATOR.

WE began our tour of inspection in the Eye wards, and here at once our attention was drawn to the charming decorations in the hall. Festoons of ivy and holly, interspersed with "old man's beard," gave a charming effect to the whole scheme.

From Ruth and Barnabas we progressed by easy stages to

MARY, and in Dr. Hale White's division we noticed a delightful arrangement of ivy, more or less filling in the space above the fireplace. Dr. Pye-Smith's division presented a most artistic completeness. In Dr. Taylor's division heavy festoons of ivy and holly gave a massive and most satisfying effect. In Dr. Goodhart's division *the tout ensemble left nothing to be desired.*

From Mary to PHILIP was but a short journey, and in this ward we much appreciated the masterly arrangement of the festoons of ivy.

Leaving Philip with reluctant steps, we mounted up to Stephen, flattering ourselves (and we hope not in vain) that the higher we climb the nearer should we get to Heaven. Whether or not we were disappointed we leave to the imagination of our readers.

We devoted our most critical attention to the multitudinous attractions of STEPHEN, and of these the most noticeable were some quaint and, we feel sure, rare and ancient busts. We do not refer to anything of an explosive nature, but to figures more resembling plaster casts. These said busts were tastefully displayed in the alcoves above the mantelpieces. Where they came from we do not profess to know, but from information received we believe that the recent excavations for the new physiological buildings brought to light many strange forms of art.

Slowly, and with a feeling of having been well pleased with everything presented to our admiring gaze, we wended our way to Clinical.

On our near approach to this building, our attention was riveted by a touch of genius. We refer, of course, to the decorations emplanted in the flower beds outside the wards. These were said to have been laid down by Mr. H——y H——ks, but again, from information received, we are able to deny this rumour. In Miriam, we were much pleased with the graceful draping of the flags over the fireplace, and in John the scheme of decoration with evergreens and Chinese lanterns was most delightful. But further information respecting the Clinical decorations is given on another page by an abler pen than ours.

From Clinical to PATIENCE and SAMARITAN was a long cry, but we were amply repaid when we arrived at these elevated regions. The sloping roofs of these wards lend themselves most admirably to the hands and brains of the anxious decorator, and we much appreciated the resulting effect.

From Patience to DORCAS, the effect in this latter ward was quite unique. Trails of ivy and holly hang across the ward and then down from the ceiling to the floor on each side, forming an avenue of evergreen down which we did walk. The tables here were most picturesquely decorated with green ribbon and candle-shades and lilies of the valley, than which nothing could have been more artistic.

And so on to CHARITY, which showed the result of much thought and labour on the part of the energetic dressers and ward clerks.

In LUKE, the electric lights covered with dark red shades gave a most delightful glow, which much added to the beauty of the decorations, the chief feature of which was a graceful arch of evergreens opposite the second fireplace.

In NAAMAN we noticed a rather unusual but pretty effect in the massing of several large Chinese lanterns against a background of a brilliant red screen. At the far end, also, of this ward, we were much taken by the fireplace, which was decorated in trellis work with paper roses and evergreens.

In LAZARUS a beautiful effect was produced by festoons of ivy and evergreen hung along the length of the ward.

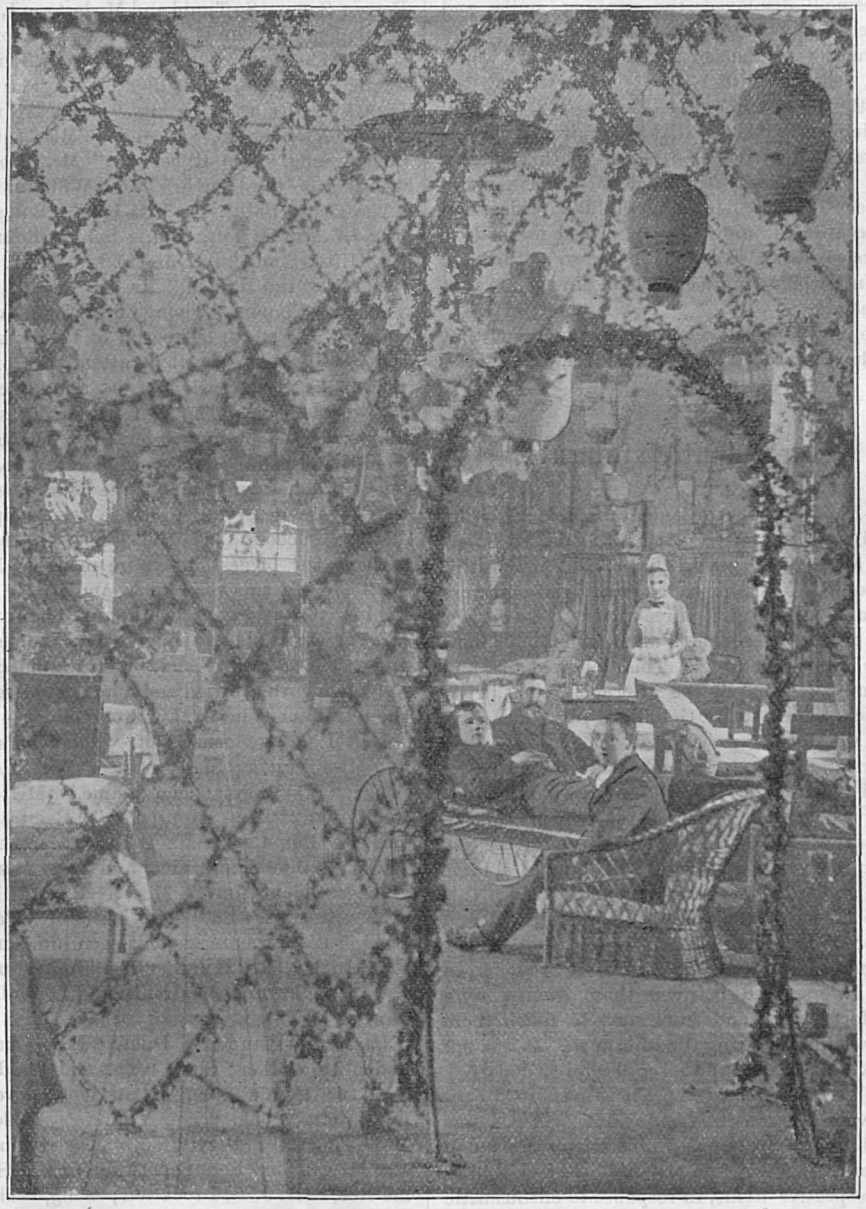
We retraced our steps, and wended our way into JOB, and here an absolutely unsurpassed scene presented itself to our appreciative gaze. This was a very fine screen, which stretched across the breadth of the ward and extended from ceiling to floor, and pierced by a doorway hung round with fairy lamps. The screen was a masterpiece of ingenuity and delicacy of design.

From Job we progressed to MARTHA, and here again we were quite astounded at the elaborate scheme of decoration which had been carried out under the direction and guidance of the fertile brain of Mr. Green. In the first part of the ward was a wonderful arch of ivy and fairy lamps, and at the angle of the ward was what looked like an Arcadian mosque. All the points of the screen and of the constituent parts of the dome were picked out in fairy lamps. The evergreen spider's web over the first mantel piece was quite a work of art.

We then went on to LYDIA, and much admired the trellis-work of ivy down the whole length of the ward, and the pretty arrangement of trails of ivy over the first mantelpiece.

Our journey was now nearly at an end; we went into CORNELIUS, where the chief feature was the absence of Chinese lanterns from the scheme of decoration; the ward being lit up with fairy lights, which gave a most fanciful and dim religious light.

Finally, we entered ASTLEY COOPER ward, and here many weird and many picturesque features were presented to us. Our charming cicerone called our attention to the keynote of the decorations—namely, patriotism to the Empire and to the Alma Mater. This was exemplified, on the one hand, by the draping of the flags and the decorations around the picture of "The Defence of Rorke's Drift," and also by the presence of more weird statues sprinkled about the ward in artistic confusion.



JOB.

We thought we traced some resemblance between the bust of the lady marked "?" and a very eminent member of the fair sex, who has much to do in the management of our great hospital. Another statue, marked "Cosmo," displayed the winning smile and genial countenance which we are accustomed to see in another eminent personage of the hospital. We would wish to add, that in neither case should we call the likeness a flattering resemblance.

In conclusion, we would say that the subject of decorations is too vast to include in an article of this nature, that we feel sure we have omitted to mention many beautiful pieces of work deserving of high praise, and that this is because the different styles and methods of decoration are so varied, so exquisite, and so picturesque that our brain becomes quite bewildered in the attempt to describe them.

Finally, we may add that there is no doubt but that this year we have again surpassed all our previous efforts.

The Ward Entertainments.

MARTHA.—Following the precedent of previous years the Golding-Bird Firm, on the 27th ult., gave an entertainment to all the children in the hospital. By three o'clock all the little folk who could possibly attend were in the ward, and for the first three-quarters of an hour, the charms of the ever-fresh Punch and Judy Show delighted the happy spectators. Then followed tea, and after this came the event of the afternoon, the Christmas tree, which, thanks to Mr. Golding-Bird's generosity, and the hard work of the previous afternoon on the part of the dressers and ward clerks, looked far and away the best the ward had ever seen, and it only wanted a first-class Father Christmas to make the whole tip-top. Needless to say, Mr. John Howell in that character was the right man in the right place, and to him in a large respect is the success of the afternoon due. When this was over, the centre of the front ward was cleared and got ready for the magic lantern, which the Messrs. Ransford kindly exhibited. Of course, it went down splendidly. Interspersed between these events, were sundry pianoforte solos, and from start to finish there was not a slow minute during the afternoon. It was not till six o'clock that the happy visitors began to depart.

PHILIP.—This, the first of the Christmas ward concerts, was a very pleasant and enjoyable one, and was well attended. Miss Spalding's violin solos were much appreciated, and Mr. Perry and Mr. Hills were obliged to repeat their respective items, in response to enthusiastic encores. The patients were thoroughly happy, and expressed themselves as delighted beyond measure at the good cheer provided. Programme:—

Part I.—Violin Solo, "Traümerei," Miss Lilian Spalding; Song, "Off to Philadelphia," Mr. Bryan; Song, "The Yeoman's Wedding," Mr. Parrott; Comic Song, "Riddlemaree," Mr. Brockwell; Song, "By the River," Miss Williams; Song, "Spring is here," Mr. Hicks; Comic Song, "The Society Nigger," Mr. Fitz-Hugh; Comic Yarns, Mr. Miller; Song, "Ask Nothing More," Mr. Jackson; Comic Song, "A great big shame," Mr. Perry; Song, "So Timid and Modest am I," Mr. Thomas; Comic Duet, "Twin Duet," Messrs. Jackson and Thomas.

Part II.—Song, "The Sleigh-driver's Song," Mr. Hicks; Comic Recitation, Mr. Miller; Song, "Le Sabre de mon Pére," Mr. Delbruck; Song, "Ah, leave me not," Miss Lister; Violin Solo, "Légende," Miss Lilian Spalding; Comic Song, "Can it be love," Mr. Brockwell; Song, "Queen of the Earth," Miss Williams; Comic Song, "The Court Ball," Mr. Fitz-Hugh; Song, "The Storm Fiend," Mr. Parrott; Banjo Solo, "Bonnie Scotland," Mr. Hills; Song, "Bid me to love," Mr. Bryan; Song, "Here's to the Maiden," Mr. Spriggs.

ASTLEY COOPER.—Though overlapping with the Philip concert, this ward, by reason of its position and popularity, secured an excellent attendance of patients and visitors on the occasion of its annual concert on the 27th December. The unfortunate absence, through illness, of the promoter certainly detracted somewhat from the pleasure of those who were aware of the fact, but still a most enjoyable three hours was spent, and all thanks are deserving to those who helped make the affair a success. Of the items on the programme, perhaps the biggest hits were made by Master Harold Watts in his two vocal solos, and by Mr. Ben Copeland in his recitation, "The Penny Showman," and by Mr. Parrott in his two songs, "The Yeoman's Wedding" and "The Storm Fiend." Mr. Landon's out-patient Polyphon gave a varied and appreciated selection during the refreshment interval. Programme:—

Part I.—Pianoforte Duet, "Shepherd's Dance," Mr. and Miss Walker; Song, "Once," Mr. J. Atkins; Comic Song, "It's a great big shame," Mr. H. B. Perry; Recitation, "Mrs. Montpelier's Recitation," Mr. H. van der Ben Copeland: Song, "Together," Mr. H. T. Hicks; Banjo Solo, "Heel and Toe," Miss Hylda Cook; Song, "Olden Time," Master Harold Watts; Song, "The Storm Fiend," Mr. H. McD. Parrott; Comic Song, "His Parents haven't seen him since," Mr. R. T. Fitz-Hugh; Part Songs, "The Francklyn's Dog" and "A Little Farm," Messrs. B. and L. Walker, Perry and Morris.

Part II.—Pianoforte Duet, "Fete Champêtre," Mr. and Miss Walker; Song, "The Old Plaid Shawl," Miss Walker; Comic Song, "Can it be love," Mr. J. B. Brockwell; Song, "The Yeoman's Wedding," Mr. H. McD. Parrott; Recitation, "The Penny Showman," Mr. H. van der Ben Copeland; Comic Song, "Riddle-me-Ree," Mr. J. B. Brockwell; Song, "The Holy City," Master Harold Watts; Interlude, Mr. A. A. Miller; Comic Song, "The Society Nigger," Mr. R. T. Fitz-Hugh; Part Songs, "The Three Chafers" and "The Catastrophe," the Messrs. B. and L. Walker, Perry and Morris.

MARY.—Last year's arrangement of having the concert in the hall of the ward was altered on the 28th ult., and

DORCAS.

LUKE.

Dr. Pye-Smith's division utilized for the purpose, and this proved in many respects, though perhaps not in all, a decidedly better arrangement. A very full house assembled, and Mr. Hills is to be congratulated on the success of the afternoon. The programme was varied and attractive, and the novelty of two lady reciters was much enjoyed.

NAAMAN.—On December 28th this ward was again lit up and an enjoyable concert given under the direction of Mr. A. W. Ormond. The programme, which was a lengthy one, included harp and violin and banjo solos, numerous songs, an admirable recitation, and a selection of Mr. Stanley Cock's well-known lightning sketches.

PATIENCE.—This ward, which, owing to the efforts of Mr. Lucas' present house-surgeon, amply repaid a visit to it any time during the week following Christmas, was doubly attractive on New Year's Eve on the occasion of its annual concert. The programme included songs by Messrs. Fairholme, Atkins, McGavin, Hammond (comic), Parrott and Jackson, an instrumental and vocal quartette, a recitation by Mr. J. Wardlaw Reid and euphonium solos by Sergeant Parsons.

LYDIA.—Besides its usual Christmas Tree, which was this year quite a marvel in its way, this ward, in which, as in Martha, the concert afternoon is set apart for the entertainment of all the small patients in the hospital, also held out the further attraction of a "Punch and Judy" show, and, needless to say, the same was most thoroughly enjoyed by all the little ones assembled here. Owing to the presence of the usual Wednesday afternoon visitors, a start could not be made until shortly after four o'clock, and lighting up was a matter of some difficulty. However, when it was done, the whole effect was extremely pleasing and attractive. At the conclusion of the puppet show at five o'clock, refreshments were partaken of, and the tree, prettily lit with wax tapers, delighted the hearts of all the little ones for the next half-hour. Each child received a toy and a useful garment, and the value of the presents given can be judged from the fact that two large tables besides the tree were piled up with gifts. Altogether this was one of the most successful afternoons of the week, and reflects great credit on Sister Lydia and her able helper, Mrs. Cunliffe-Owen, who with Mr. Stamford, bore the brunt of the work.

DORCAS.—The Dorcas concert on December 29th was a huge success from start to finish. Mr. Chas. Capper quite brought down the ward by his brilliant and most melodious whistling, and but for a previous engagement would have favoured us again in addition to his willing encore. Miss Hugôt's paper-folding, and quaint song describing each article, was as delightful as it was uncommon. Both pianist and violinist were especially good, while all the singers were in great form, "Vamka's Song" gaining special appreciation. All who took part in the programme, as well as all who in any way assisted in Christmas preparations, performances and clearances, deserve and have the hearty thanks of those who so greatly benefited by their kindness. Sister Dorcas is to be thanked for so many things that we must be excused lumping our gratitude into one big thanks. Programme:—

Part I.—Pianoforte Solo, "Sonata," Miss Lidderdale; Whistling Solo, "Les Folies Polka," Mr. Chas. Capper; Paper Folding, Miss Hugôt; Song, "Serenata," Miss Rice; Violin Solo, "Mazur," Miss Kitcat; Song, "Is Life a Boon?" Mr. H. T. Hicks; Song, "Yea or Nay," Miss Orr; Comic Song, "The Magpie said, Come in," Mr. Burgess Browne; Song, "Gipsy John," Mr. A. W. Ormond; Song, "Down the Vale," Miss Whiley; Violin Solo, "Reverie," Miss Kitcat; Duet, "Toys," Mrs. Chas. Capper and Miss Hugôt.

Part II.—Duet, "The Twins," Mr. F. G. Thomas and Mr. J. L. Jackson; Pianoforte Solo, "Etude," Miss Lidderdale; Song, "Medje," Mr. H. J. Starling; Song, "Sing, Nightingale, Sing," Miss Rice; Comic Song, "When I was a Boy at School," Mr. Burgess Browne; Song, "Vamka's Song," Miss Orr; Duet, "I don't want to play in your yard," Mrs. Chas. Capper and Miss Hugôt; Song, "Pretty Polly Oliver," Mr. T. L. Jackson; Song, "Beloved, it is Morn," Miss Whiley; Comic Song, "Wash me, Mother," Mr. Burgess Browne; Quartette, "Tower Tomb," A. Foursome.

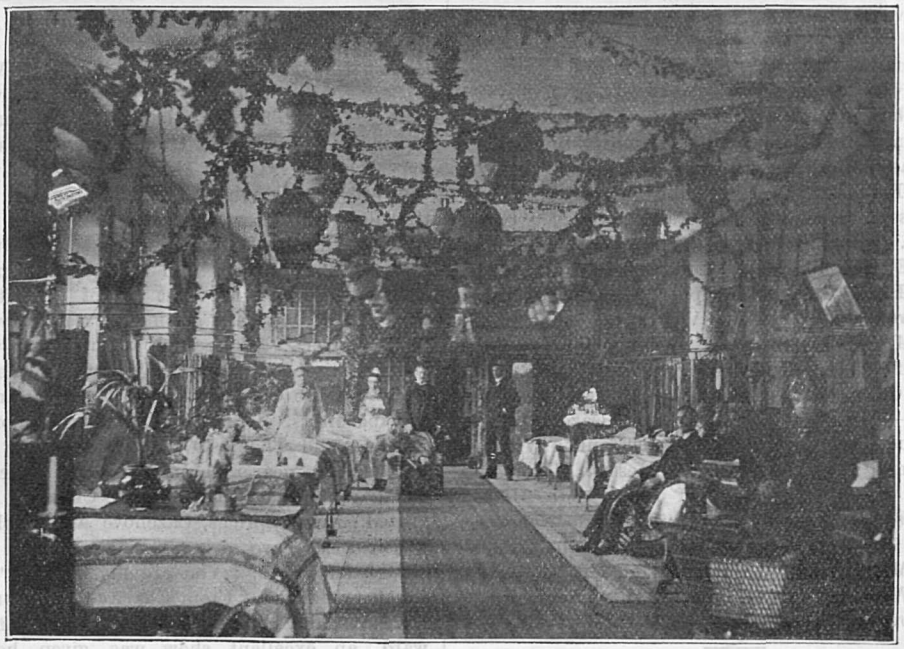
RUTH AND BARNABAS.—As usual, an excellent concert was given in Ruth, this time under the direction of Mr. Fortescue-Brickdale. The performance was really high-class, and though on perusing the programme we pause for one moment on seeing Mr. Stanley Cock down for "Lightning Sketches," yet we feel sure that the seeming anomaly is explicable.

CLINICAL.—This concert took place in John, on Thursday, December 30th, and proved, as did all the others, highly successful, and much enjoyed by all present, patients and visitors alike. Programme:—

Part I.—Banjo Quartette, "Darkies' Dream," Misses Rudge, Nunn, Haslewood, and Mr. W. Cary Bullock; Song, Selected, Mr. Arthur Lovell; Song, Selected, Mr. A. A. Miller; Piano Solo, "Rhapsodie Hongroise," Madame Adrienne Blower; Song, "A perfectly peaceful person," Mr. Kelsey; Song, "At my window," Madame Alice Lovenez; Banjo Quartette, "Sunflower Breakdown," Misses Rudge, Nunn, Haslewood, and Mr. W. Cary Bullock; Song, "Winter love song," Mr. F. G. Thomas.

Part II.—Song, "Song of Sleigh Driver," Mr. H. T. Hicks; Banjo Solo, Selected, Miss Rudge; Song, "My Angeline," Mr. W. R. Cazenove; Song, "Long ago in Alcala," Mr. T. L. Jackson; Song, "The promise of life," Madame Alice Lovenez; Banjo Quartette, "Mississippi Breakdown," Misses Rudge, Nunn, Haslewood, and Mr. W. Cary Bullock; Song, Selected, Miss Ada Weightman; Song, "His parents haven't seen him since," Mr. R. T. Fitz-Hugh.

CORNELIUS.—The "Corny" concert is always a popular one, and this Christmas it was no exception to the rule; in fact, it rather added to its already high reputation. The ward looked its best on the evening of December 31st, with its variegated fairy lights and the platform decked with flowers and palms, formed an extremely



LAZARUS.

MARTHA.

handsome feature. The programme was much above the average, and Fraulein Witting, Mr. E. Halton and Mr. Cazenove in their respective songs were quite first-class, while Mr. Tipper is apparently the most accomplished hand-bell player that this country possesses. The piano was, unfortunately, not quite in tune with the bells; but with those for whom the concert was primarily intended—namely, the patients—this would probably pass unnoticed. Programme:—

Part I.—Pianoforte Duet, "Victoria and Merrie England," Messrs. Cazenove and Eason; Song, "Gipsy John," Mr. Ormond; Song, Fraulein Witting; Comic Song, Mr. E. Halton; Song, "Long ago in Alcala," Mr. Jackson; Hand Bells, Mr. Tipper; Vocal Duet, Mrs. Cunliffe-Owen and Fraulein Witting; Song, "Fido Waters," Mr. Hicks; Song, "Come, my love, to me," Mrs. Cunliffe-Owen; Comic Song, "The Golden Dustman," Mr. Cazenove.

Part II.—Pianoforte Duet, Messrs. Cazenove and Eason; Duet, Mrs. Cunliffe-Owen and Fraulein Witting; Comic Duet, "The Twin Duet," Messrs. Miller and Cazenove; Song, "The Song of Sleep," Mr. Hicks; Hand Bells, Mr. Tipper; Song, "The Broom-maker's Song," Mr. Jackson; Comic Song, "Under the Circumstances," Mr. E. Halton; Song, "Ich Grolle Nicht," Fraulein Witting; Comic Song, "The Phonograph," Mr. Cazenove.

ALL the programmes of the ward concerts were tasty and effective, those of Dorcas, Cornelius, Mary and Naaman being especially so.

The Disguysed Minstrels.

CHRISTMAS DAY, 1897.

THE above band of brothers brought off their annual tour of the hospital wards for the delectation of the patients and others on Christmas afternoon. Needless to say that their efforts were highly appreciated by all who witnessed them. Messrs. Ash & Co.'s Christmas gift to all the patients in the shape of the usual pictorial programme, had already made them acquainted with the fact that something was coming, and when it did come the excitement and amusement exceeded all bounds. Though there were no Matabele warriors this year to act as forerunners, still a substitute was found, or founded, in the form of a Phunny-phone band, whose weird unearthly rendering of the "Washington Post" was most effective as a herald of the troupe's approach.

It was a few minutes after one o'clock when a start was made in EYES. Here the gloomy aspect of the patients was soon brightened by Ormond's "Little bit of String," and Ransford's "Same old Moon," while Brockwell's "This is how he laughs" was almost an eye-opener. A move was then made to PHILIP, the band tuning up on the staircase. Spriggs was here heard to advantage with "Who did?" followed by Parrott with the famous "Old Banjo," and the second performance closed with Cazenove's well-known "Rhoda," and Hick's most effective "Way down the Ohio." Then up to STEPHEN they went, where four new turns came on, Jackson singing the now famous "Dinah Doe"; Miller, "The Society Nigger," which is a very fine song, with a most taking chorus; Thomas, that pretty "Nature has gone to her rest"; and John Howell making his first public appearance in "Clever Mr. Green," which proved quite the hit of the show. From Stephen the troupe travelled BRIGHT-wards, where Starling's "Bye-Bye," Atkins' "Dollie Daydreams," and Fitz-Hugh's "His Parents haven't seen him since," went uncommonly well. There, too, the first tea of the afternoon was partaken of; but time getting on, a move was very soon made to MARY. There the opening chorus was tried for the first time, and very well it went. Miller then gave "I've got the Ooperzootic," to the great amusement of the spectators. He was followed by Ormond's "Bit of String," and Thomas's song brought the troupe yet another step nearer dinner. A slight alteration in the usual route was then made, CHARITY being next visited, where Spriggs, Cazenove and Hicks were the artistes, Cazenove giving "My Angeline" for the first time, and Hicks, "You are my darling," which was much applauded. From Charity to PATIENCE is only a few steps, and notwithstanding the disadvantages of the ward, an excellent show was given here, Parrott, Ransford and Miller giving their respective songs. By 3.20 the troupe reached CLINICAL, and in JOHN, Fitz-Hugh, Atkins and Hicks gave the patients the benefit of their performances with excellent effect. In MIRIAM, Jackson, Starling and Howell were the artistes. After yet more tea, and we believe a little something less weak than tea, a move was made back to the medical building, where, in OUT-PATIENTS, what was perhaps the most important show of all was given. The delight of the children assembled was patent to all, and had it taken a less noisy form would probably have been more appreciated by the troupe. However, everything went splendidly. Ormond started with the string song, followed by Hicks with "I love thee well." Then came two comics, Cazenove with "Rhoda," and Brockwell with his laughing song, both of which elicited storms of applause. 4.30 saw the niggers in DORCAS, where Jackson, Miller, and Thomas furnished the attractions. From here along the corridor to LUKE, where Starling, Howell, and Parrott, were quite on the spot Then across to NAAMAN. Here Fitz-Hugh's nigger ditty took the ward quite by storm, and Atkins and Hicks finished up yet another performance. JOB at 5.15. Here for the first time after Ormond and Brockwell had sung, Miller and Cazenove gave the twin duet from "The French Maid." This proved perhaps the best hit of the day. Then on to LAZARUS, where John Howell sang "Mr. Green" to his own patients with no ill effect, and was well backed up by Ransford and Hicks. MARTHA heard Parrott, Jackson, and Miller, and as the day was far spent a quick move was made to LYDIA, where Thomas, Cazenove, and

LYDIA.

ASTLEY COOPER.

Starling sang with effect. No more teas were indulged in, but the troupe hurried on to CORNELIUS—the last ward but one. Here Fitz-Hugh, Atkins, Hicks, and Brockwell were the privileged performers, and then tired and weary in mind, but buoyed up by the hope of dinner with something from the Treasurer to help it down, the troupe made its last stand opposite the appropriate picture of Rorke's Drift in ASTLEY COOPER. Here Jackson, Hicks, Parrott, and Thomas, gave songs, and Miller and Cazenove wound up the tour with their excellent duet.

We feel sure that we are expressing the feelings of every patient who witnessed the performance on Christmas Day, when we thank the whole troupe for the noble way they went through their really hard work. From start to finish there was no hitch, and the general opinion seemed to be that as a troupe it was well above the average of previous years.

The Clinical Decorations.

BY AN OBVIOUSLY IMPARTIAL "CLINICAL."

THE decorations in Clinical this year surpassed even what one has been led to expect in this ward, and there can be little doubt in the minds of those who impartially reviewed the various wards, that it was here that most taste was displayed and the prettiest effects produced. With true artistic conception of the effect of contrast, the decorators had left the sombre and gloomy entrance to the wards quite unadorned, save for two stately flags fluttering in what may be termed the front garden. But on emerging from the dark passage into John ward, the eye was at once dazzled and the mind enchanted with the beauty of the scene. Delicate wreaths of ivy, starting from every corner, interlaced with each other overhead, and twisted spirally round the stately pillars, while heavy festoons of green hung from each bedrail to the centre; their sombre hue being pleasantly relieved by gaudy Chinese lanterns, and from every nook and cranny peeped variously coloured fairy lights. The tall chimneys and fireplaces were draped most fittingly with our national flags, a truly delightful touch of colouring, while large bunches of holly and a profusion of cotton wool, gave a seasonable appearance to the whole. In Miriam the general idea was much the same, although here the slight differences in design showed effectually the versatile talent of those who had given so much time to brightening the ward.

"I suppose you got some big West End firm to do this?" queried a stranger of a tall military-looking gentleman in a frock coat, on the afternoon of the Clinical concert. "Are you a stranger here," was the reply, "because if not ——," and a significant look at the door, warned the questioner that the practice of leg-pulling was not suffered with impunity in this part of the hospital.

Chapel News.

(CONTRIBUTED BY THE CHAPLAIN.)

I remember many years ago being present at a meeting in St. James's Hall at which the late Canon Liddon spoke with even greater power than he usually manifested. "Whenever you read an article in the *Times* on church matters," he declared, "you may be sure beforehand that it will say the wrong thing." The remark came freshly to my memory last Monday when I read the *Times* account of Christmas at Guy's. "The day began," it stated, "with a short special religious service in the Chapel at 8 a.m." The facts were quite otherwise. The day began with Holy Communion at 7 a.m., at which 64 persons communicated. Then came the same service in Bright ward, at which four persons received. This was followed by another service in Chapel, at which 70 persons partook of the Blessed Sacrament. Total 138.

At the 7 a.m. service the Chaplain was most kindly assisted by the Rev. E. C. B. Philpott, Succentor of S. Saviour's Southwark.

With one other remark of the *Times* we shall all be in full agreement. "The Chapel," it said, "was most tastefully decorated under the immediate supervision of the Matron." Christmas is, indeed, the most difficult season in which to decorate seasonably. Easter naturally calls for spring flowers, harvest is obviously suggested by autumn tints, and in both cases materials of sufficient variety and brightness are ready to hand. But holly, even when relieved by its bright red berries, makes rather a heavy and monotonous material for decorative purposes, and the problem how to enliven its dulness was tastefully solved by the Matron and her helpers, to all of whom we present our compliments and thanks.

The offertories on Christmas Day and on the next Sunday, on behalf of the Institution "Maternity Samaritan District Nursing Fund" amounted to £6. A cheque for five guineas had been previously placed in my hands, so that I had the happiness of assisting this most deserving charity with a total offering of £11 5s.

The offerings for the St. Andrew's Waterside Mission on November 28th came to £3 0s. 10d., just ¼d. less than last year.

From the Gazette's Special Pathologist.

NOTICES.

F. J. H. C., DAWLISH.—This tumour appears to be a colloid carcinoma. But the degeneration is so extensive that it is impossible to make out much of the growth. From its situation it was probably connected with the colon.

E. R. M., HASTINGS.—Tubercle bacilli are present in the sputum in very small numbers. PATHOLOGIST.

Passim.

A HAPPY AND PROSPEROUS NEW YEAR TO ALL OUR READERS!

WELL, another year has started at Guy's, and the customary number of good resolutions have been made and most probably broken by now. One resolution, however, of a somewhat different kind we have passed from the editorial chair, and that is, a hearty vote of thanks to all who have helped us in the maintenance of the GUY'S HOSPITAL GAZETTE as the premier hospital journal we hope it may always prove to be. To contributors and readers alike, we offer our grateful thanks, and last, but not in any respect least, to Messrs. Ash & Co., our printers, with special mention of the name of Mr. F. J. Fenn, to whose continuous zeal, courtesy, and good work we are indebted for a large share of the popularity we trust that we enjoy.

THE New Year was ushered in at Guy's with the customary celebrations in the front quadrangle. The statue, more elaborately decorated than on former occasions, by members of the taking-in firm and their friends, looked extremely well with festoons of fairy lights from each corner of the railings, and an arch of the same over Guy's head. At a quarter to twelve there were barely twenty men to be seen about, but, as the hour drew near, they turned up from no one knows where, and when the President of the Residents mounted the statue as the clock was about to strike, there must have been well over three hundred people assembled. A huge ring was formed, and the Hospital bell announcing the arrival of midnight, the Senior Charity started "Auld Lang Syne," time being kept from the statue by the aid of a flaming torch. Then followed the customary cheers for every one of importance connected with the Hospital, and sundry mad dashes round the square by bodies of men bearing, what on close investigation proved to be a going-off resident or any member of the Staff who dared show himself. By the half-hour, everyone was satisfied, and an adjournment to "the rooms" made, where the dressers for the week had provided the customary good cheer. After some appropriate songs by members of Her Majesty's civil forces and others, the assembly broke up and all went to bed.

MENTION has been made above of going-off residents. It is with much regret that we bid farewell to Messrs. Thomas, Spriggs, Howell and Rowlands. They have all proved themselves excellent fellows and their places will be hard to fill. The new President is Mr. Stamford, to whom we offer our sincere congratulations on his election. Though he probably has not such a busy three months socially before him, yet the post is assuredly a difficult one to fill successfully, but we are confident that the job is in safe hands.

IT is with the utmost pleasure that we congratulate Mr. C. H. Fagge on his magnificent achievements at the London University and the Royal College of Surgeons during the past months. When we heard that he had won the exhibition and gold medal in medicine at the M.B., closely followed by the news that he had passed the Final Fellowship in the shortest possible time, we thought that he had done quite enough for one spell of work. But now comes the tidings that he is bracketed first with a Thomas's man (a brother, by the way, of our late Sister Clinical), at the B.S. Honours exam., gaining thereby another gold medal and half the exhibition. It is really immense. Never since Mr. Howse's time has such honour fallen to Guy's.

WE take this opportunity of thanking most heartily all the various firms who, as in former years, were kind enough to lend pianos to the various wards of the hospital for Christmas-time. We cannot imagine what we should do without them, and we feel sure their generosity is appreciated to the full. To Messrs. Imolf & Mukle a word of thanks is also due for the loan of their most musical "Polyphon," which is the official name of the glorified musical box that made a successful appearance in many of the wards.

WE have before us at the present time the *Hospital's* account of the Christmas decorations at Guy's, and for the encouragement and satisfaction of those who worked so hard to make the wards look beautiful, we quote the following sentence. After describing the beauties of Martha, and making special mention of the Job screen as "one of the lightest and most effective ivy screens we have ever seen," the reporter goes on to say, "Indeed it is not too much to say that for beauty of design, and effect in execution, the Christmas decorations of Guy's Hospital were probably never surpassed by any other

decorations in connection with the celebration of Christmas in the Diamond Jubilee year." There now!

OUR special decoration critic, during his tour of the hospital for descriptive purposes, omitted to visit one or two places which would certainly have repaid him. One of these was the isolation room, where, we are told, though we did not actually see them, the decorations were on a most elaborate and effective scale; and be it known for the credit of the decorators, not a single atom of damage, in the shape of the smallest tin-tack hole, was done to the walls. The masterly—or should it be mistressly—arrangements of bits of strapping was as effective as it was ingenious.

THE 27th of December is, as most people know, the anniversary of Thomas Guy's death, and on that day the wreath of laurel, which for the last three years has been given by an old patient of Philip ward, Mr. T. Salter of the "Flower Box," Great Dover Street, was placed on the railings round the statue. Last year, the wreath, by a mischance, hung for a day or two on Guy's tomb inside the chapel, but this year it reached its destination at the first attempt, and kept its place till New Year's Day, when some impious Borough lads set fire to the decorations of the statue, and it was consumed with them.

WE have been asked to remind our readers that the College Servants' Christmas-Box Fund is not yet closed, and is in need of more general support if it is to reach its usual proportions. It is needless to advocate the claims that the college servants' fund has on all who use the club during the year. Everyone has experienced many little conveniences at the hands of those who look after the building, and so we confidently leave it to their generosity to bring the amount up to the mark.

THE Students' Christmas Dinner Fund for the Patients exceeded £80, thus beating all previous records.

DISAPPOINTMENT is universal that the *Guyoscope* has come to what is apparently an untimely end. However, all good things must end some time or other, and the *Guyoscope* has proved no exception, alas, to the general rule. But it has not been without success, and the promoters can rest satisfied that at least ninety-nine per cent. of Guy's folk appreciated and enjoyed it. We hear rumours that possibly a new series will shortly be started, and certainly our lively little contemporary is worth a good effort to restore to life again, from what we hope may prove to be only a state of suspended animation.

THE presentation picture of Guy's Tomb, which arrived from the printers just too late to be given out with last issue, can now be obtained on application to the Librarian. The index of the volume of the GAZETTE which was completed at the end of the year, is in preparation, and will shortly be obtainable at the same source.

THE Court Room dress rehearsals of the Disguysed Minstrels duly took place on Tuesday and Wednesday last. We do not intend offering, as yet, a detailed criticism of the entertainment, as it was impossible on those nights to give it in the form that it will appear before the public. Several of the corner men were unfortunately absent, and the Part II. of the programme was also weak. The "wheezes" will need considerable strengthening, a certain quintette must be dropped, and the sketch would do with some elaboration. As regards the Orchestra, it struck us as being well up to the mark at this early stage, and Mr. Eason will no doubt be easily able to correct any defects before the big shows come on.

TICKETS for both the St. George's Hall and Bromley performances of the Disguysed are not going as they should. The former entertainment takes place on the 14th inst., next Friday, in fact, and if the event is to prove anything of the success it was last year, a very considerable amount of work must be done. We appeal especially to all the friends of the hospital in the West-end. It is hopeless to get on without their hearty co-operation, and the making or marring of the performance really rests with them. The same applies to the Bromley show on the 11th inst. There must be crowds of people in that district who could aid us considerably if they only would. The hard-worked secretary, Mr. J. A. Reaside, will gratefully accept any offers of help for these and any other of the engagements.

SOME surprise was expressed at the non-appearance of the GAZETTE last Saturday, but it was thought better to avoid bringing out a

hurriedly produced number midway though the Christmas festivities, when no one would have time to read it, and to try and manage a more complete account of Christmas at Guy's a week later.

THE Clubs' Union subscribers to the GAZETTE and Hospital Reports are reminded that their subscriptions fell due on January 1st. Cheques and postal orders to be made payable to Mr. S. H. Croucher.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Freemasonry for Guy's.

SIR,—Guy's, which always seems to be progressive, and ahead of most of the other London Medical Schools, has not, so far as I am aware, a Lodge of Freemasonry for the benefit of their staff and students. I think I am correct in stating that both St. Bartholomew's and St. Mary's have flourishing lodges. As a Freemason, I think it is of great importance for students to have the opportunity of being initiated and receiving instruction in the craft, so that when starting life in a country village or provincial town, they would be able to quickly hold some of the offices in the lodge they may join. I believe the lodges belonging to Bart.'s and Mary's have been named after some great benefactor or one of the medical staff (an enthusiastic Freemason).

This would seem a very suitable time for the formation of a lodge at Guy's, as one of our greatest of Freemasons —H.R.H. the Prince of Wales—is now so closely connected with the institution.—Yours faithfully,

N. B. C.

The Children's Tea.

DEAR SIR,—Now that Christmas has come and gone, I wish to thank all those who so kindly helped to make the Out-patient tea the success it was, and I know of no better way than through the HOSPITAL GAZETTE. The success was due not to the individual efforts of one or two, but to the co-operation of many, all of whom worked in the greatest harmony and for the same end. I'm sure they must feel satisfied with the result. I have been told that in the Boro.' the Tea is still the chief topic of conversation, some of the children being surprised at being allowed to return home without "being chloroformed first."

On behalf of the Committee I wish to thank all those who so kindly gave us their time on Christmas-day, and helped to preserve order whilst the tea and shows were in process of operation.

We offer Mr. Lafone our sincere thanks for his generous gift of two-hundred pounds of tea, which, when made up nto half-pound packets, supplied four hundred children. To Mrs. Cock and Mrs. Owen and several other ladies we are indebted for a number of garments and toys.

To the Sisters, Nurses and Lady Pupils we offer our sincere thanks for their kind help. That the latter were unable to witness the pleasure they had largely helped to give, was regretted as much by the Hospital at large, as by themselves—only Staff and Head Nurses being allowed to come.

To the House-Committee we are indebted for a generous offer to make up any deficiency, help I'm thankful to say we shall not require.

We offer our sincere thanks to Miss Perry, Miss Cock and the Misses O'Brien for kindly giving away the presents, and congratulate them on the successful way in which they performed their arduous task.

The Minstrels do not require many words of thanks from us, they received theirs whilst down in Out-patients in a way I don't think they will soon forget; it was very kind of them to come down to us.

In conclusion, I thank all on behalf of the children, who will look back with pleasure to Christmas, 1897.

If the inhabitants of the Borough by any chance now regard the Hospital in a more friendly light, our labour has not been in vain; let us hope so.

I must not take up any more of your time, so thanking you for inserting this letter, and wishing you and your readers all happiness and prosperity for the New Year.—I remain, dear sir, yours faithfully,

The College, Guy's Hospital. T. W. LANDON.
January 3rd, 1898.

Another Disclaimer.

DEAR SIR,—I hope you will find space for this modest disclaimer. You have been kind enough to mention my name in connection with the defence of Fort Gulistan, and though I would only too gladly assimilate as my own, the military glory attributed to me, not only by you, but by other kind friends in England, yet in this case I am sorry to own that I do not deserve it. The man who was there is my first cousin, Cedric B. Prall, surgeon to the 36th Sikhs, and an old St. Thomas's man. I wish with all my heart that it had been my lot to do something of the kind, if only for the sake of the old hospital, but it was not my fate this time as they have kept me down here all the year on plague duty. From what we hear in Bombay it is clear that in spite of the "grievances," the medical officers on service have ably upheld the traditions of their order by their devotion to duty, especially under fire, the last instance being that of my old friend and contemporary, W. G. Beyts, who is reported to have carried a brother officer out of action on his back down a most difficult hillside, exposed all the time to a heavy fire at close range.

I have to thank you anyhow for the friendly way in which you referred to me, and remain with all good wishes, yours faithfully, SAMUEL E. PRALL.

Bandra Hill, Bombay.
December 10th, 1897.

Stephen Concert.

THE "Star" Concert in Stephen this Christmas was this year given by well-known members of the theatrical and musical profession, and corresponded in most respects with those given in recent years in Philip. For this excellent entertainment we are indebted to the kindness of Mr. Horace Gilmer, of the Princess' Theatre, who took a great deal of trouble in providing a really first-class programme. Unfortunately, he was disappointed at the last minute by several of the artistes, who through illness and other causes were prevented from attending; but nevertheless, a thoroughly enjoyable two hours was experienced, and thanks to the excellent arrangements made by Dr. Thomas and his helpers, all the patients and those of the nursing staff who were able to attend, could see and hear without experiencing the discomforts of past years. The first item on the programme, which was specially designed by Mr. H. D. Peile, was a musical sketch by Mr. Robert Ganthony, in which he gave clever

imitations of various musical instruments. He was followed by Little Doris Deane, a songster of some eight years, who sang a pretty doll song, called "Ickle Sweetheart." Madame Lucille Hill, of the Royal Italian Opera (whose name, by-the-bye, did not appear on the programme), then delighted the audience with a song entitled "Swallow," and, needless to say, Katie Seymour, the well-known "Gaiety" artist, received a vociferous encore for her song and dance. Beatrice Ferrar (Comedy Theatre) then told us her idea of "Babies," which was most amusing, and then came one of the tit-bits of the afternoon, a vocal duet by Miss Marguerite Fish and Charles Warren (of the Princess's) about "Brighton by

the Sea," and the people and things to be seen there. Hayden Coffin (of Daly's) then sang twice, the second song as an encore. We have heard him often, but we are sure he has rarely sang better than he did

that afternoon. Miss Isa Bowman then gave "In Convent Gray" with much feeling, after which a cheerful contrast came with G. H. Snazelle, of the Shaftesbury, with two humorous recitations, which went down capitally. The tenth item was Miss Kosminski's (Savoy) song entitled "Sing, sweet Bird," a most difficult rendering admirably given. Little Charles Warren—a tiny lad dressed as a soldier—brought down the ward with "The Song that will live for ever," and then followed Charles Copland (Prince of Wales') with a fine song, "An old

Garden." W. H. Denny here sang a most amusing song, relating the advice his mother gave him for his well-being. John F. Sheridan's "Beautiful Music" was much appreciated, and Miss Blanche Astley's song and dance and another musical sketch by Mr. Ganthony brought a most successful performance to a close. Before the audience dispersed, a hearty vote of thanks was given to the artistes, and three cheers and "God save the Queen" finished the 1897 concerts in the Medical building.

NOTICE TO CORRESPONDENTS.

The Editor wishes it to be understood that no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

The Out-Patient Tea.

IN spite of certain pessimistic predictions, the First Annual Christmas Day Tea to Borough children, so energetically and admirably engineered by Mr. T. W. H Landon, turned out a huge success. Long previous to the day, many hands had been busy distributing the tickets, and it speaks well for the way in which the work was done when we say that of all the 490 odd children who left the building at the conclusion of the afternoon's enjoyment, two only appeared to us to be doubtful recipients of the charity of the organisers of the scheme, and on enquiry, of these two girls, one was found to be two years over age and the other nearly a year, but as they had both been warded in Mary, they were allowed to stay the whole afternoon. The rest of the children it would have done anyone good to see, though perhaps not to hear; when the whole lot of them sang popular airs in unison, the noise was absolutely deafening. The outside gates, guarded by two stalwart policemen, were carefully opened punctually at two o'clock, but long before that time, even as early as 12.30, the children had begun to assemble. By the half-hour the whole place was full and the children all seated, and then was the ideal time to take a peep of the whole scene. Ranging down the whole length of the hall—medical and surgical divisions—was a double row of trestle tables, with children packed closely on each side, stowing away with amazing rapidity whatever was handed them by those in attendance. At intervals, down the tables stood urns of tea, presided over by those of the nurses who were allowed to be present. This part of the business went on till nature could stand it no longer, and when all were satisfied, the signal was given and the crockery and tables were quickly removed. And here we would put in a word of praise for the caterer and his helpers for his excellent management. The supplies were ample and continuous, and the remarkably rapid way in which all signs of the feast, beyond the orange peel on the floor, were cleared away, was one of the features of the afternoon. A stage was then rapidly manufactured opposite the Sister's room and forms arranged, and the children packed in anticipation of the Niggers' visit. This was easily done, as the girls had on admission been sent to the medical end, and the boys to the surgical, and they were thus kept easily under control. Before the arrival of the Troupe, which occurred just before four o'clock, the children were treated to some excellent, though perhaps too high class music in the shape of songs by the Misses O'Brien and Miss Collier, and a banjo solo by Miss Hylda Cock. Alas, that the general hubbub was too great for them to be distinctly heard! When the Niggers did arrive, the excitement of the ragamuffins beggars description. It was some time before sufficient quiet could be obtained for them to be heard. Once started, however, all went swimmingly, and we congratulate them on their excellent show under somewhat trying circumstances. The details of their performance are given elsewhere.

This being over, the room was again rearranged, and William Whiteley's Royal-coat-of-armed Punch and Judy Show held the children, well, not exactly spell-bound, but at any rate engrossed for a good half-hour, after which came the Christmas-trees. These had been previously prepared, one at each end of the department, but hidden from view by an arrangement of sheets, which at the appointed time were lowered and the trees lighted. For these trees the committee have to thank our worthy Treasurer, and two more magnificent specimens it would be hard to find. Then came the business of distributing to each child a toy from the tree; a garment intended more for use than for ornament, a packet of sweets, without which no Christmas is complete, and a large parcel containing half-a-pound of tea, a loaf, an orange and some apples. By the time the children got to the exit it can be guessed that they were pretty fully charged, both inside and out. The work of distributing was undoubtedly an extremely hard one, and it was at the boys' end that the only semblance of real disorder during the afternoon took place. However, all ended up peacefully, and by six o'clock the last child had left, after having spent, we feel sure, a more enjoyable Christmas afternoon than it had ever done before.

Little more remains to be said. On looking back now at the event, the writer cannot but feel glad, as no doubt all who were down there felt, that he was able to take a part in such a scene of enjoyment and pleasure on the part of those little Borough roughs, as a greater proportion of them can only be described as being. Thanks to the efforts of the Sister and her staff, the usually dull and dismal "Out-Patients'" looked bright and attractive, with its lanterns, fancy lights, and drapery. On another page will be found a letter of thanks to all helpers from the secretary of the scheme, to whom the lion's share of the credit is due. He worked indefatigably from start to finish, and it must have pleased him immensely to receive the universal congratulations he did, on the success of the afternoon. The other helpers—sisters, nurses, students, and friends outside—will, we know, excuse our mentioning them all by name, but they can rest assured that their efforts were undoubtedly crowned with success, and that some five hundred deserving Borough children spent at least one happy afternoon during the year that has just ended.

The Rugby Team.

As the season is now half over, it will interest all to know that in all 14 matches have been played, three of them combined with St. Thomas's. Excluding these latter, the results read:—Won 6, lost 4, drawn 1. The number of points scored is 101 against 44. The victories were over Royal Engineers, Old Leysians, Croydon, Coventry, London Scottish and East Sheen.

A Day in the Surgery.

THAT the saying, "The poor ye have always with you," is as true now as when it was first written, is a fact that nobody is prepared to dispute, but to realise the truth of it in all its entirety, one cannot do better than spend a day in one of the big London hospitals, preferably in the out-patient departments, and mark the constant, steady stream, surging in and out, hour after hour, from morning till night, and sometimes almost from night till morning.

I say preferably in the out-patient departments, because there one gets the poor in all their poverty, whereas, in the wards, after the initial scrubbing and donning of clean clothes, one almost loses sight of the slums whence they have emerged, so venerable do the grannies and daddies look with their white hair decently brushed, so tidy the usually slatternly mothers, and so fascinating the little ones in their pink gowns and white pinafores.

Spending a day, for instance, in our own front surgery at Guy's, one may come across almost every sort and condition of the average "poor person." Here we find represented all the seven ages of man, from the ever-present infant in its mother's arms, to the "lean and slippered pantaloon," with such endless shades of character in between as would have furnished the immortal Dickens with materials for another lifetime of story writing.

As for the babies that are brought in here day after day, their name is legion—burnt babies, scalded babies, rickety babies, badly-fed, over-fed, insufficiently fed—some needing nothing so much as cleanliness, good food and fresh air, and others feebly struggling against inherited disease, and seeming as if they cried out helplessly at the unfairness of their heavily-handicapped start in life. Puny, fretful little things most of them are, dirty, ill-kept and diseased, huddled in old shawls, and wrapped in clothes that generally have pins in every place where buttons and strings should be. Yet even here one meets occasionally a "nice" baby, big-eyed, smiling, fat and good-natured, taking even at this early stage of its career, a decidedly optimistic view of life, and beaming alike on everyone. Alas! though, that these optimistic babies should be so rare, and that cries—not always of pain—should so often rend the air at the approach of the most friendly-faced dresser, charm he never so wisely.

There are not many quiet half-hours in the surgery. It is busy till midnight, and from then till about six in the morning is the slackest time. From six to eight things are rather forlorn. The cheery fires are out, the hot water pipes generally cold, and the floors given over to the much-needed broom and scrubbing brush, so that the dresser for the week, should he chance to be an early riser, has to pick his way, an unkempt and shivering object, over pails of water and among little cakes of soapy lather, in search of the college baths.

He does not always get there without let or hindrance. Many stray cases stroll in on their way to work and delay him sometimes until the other dressers come on duty for the day. By nine o'clock the number of cases waiting to be seen has materially increased, and by ten the business of the morning is in full swing. In the women's surgery the babies now predominate, and there is work for all.

There are people who come up on wrong days, at wrong times, to see wrong dressers, and require to be set right, besides divers other occurrences trying to the flesh and spirit, as for instance, the woman who wants her baby's throat treated, but who, when the painstaking H.-P., in spite of the child's screams, succeeds in getting the spatula into its mouth, suddenly declares she "would rather pay a doctor, than bring her child here to have it choked," and snatching it up, marches out with it, breathing out threatenings of making our deficiencies as a hospital known to the general public, through the medium of a letter to the *Times*.

Then there is the alcoholic patient, who being conducted into the surgery between two policemen, all at once sees in the new splint cupboard a foe, invisible to the naked eye of the unprejudiced bystander, and forthwith deals it a mighty blow with his fist, nearly demolishing one of its panels.

A judicious course of "washing out," plus a few applications of the battery, restores his mental and physical equilibrium, and after a time he goes out again a comparatively sober man.

After this, comes the heroic small boy, who holds out a diminutive finger to be dressed, with an almost imperceptible cut upon it, and who is supported by two or three companions of similar size, all more or less dirty. Another small boy has been trying the experiment of putting a lighted candle, not under a bushel, but under his jacket, with the result, surprising to him, no doubt, and painful, that he has got burned. Then comes a baby, whose mother owns to having left it for the proverbial "two minutes," and who is badly burnt, owing to its small brother having set fire to its cradle by way of pastime. Next, is an old lady with fractured tibia, who is heard to say to the H.-S. in confidential tones, "Now, young man, if you fix up my leg nice and easy, I'll give you half-a-crown!"; but history does not relate whether that munificent promise was ever redeemed.

Between twelve and two o'clock is a busy time. Patients arrive in swarms, with cards for different dressers, and the seats are full to overflowing. Now the doorways get blocked up, and people stand seven or eight deep, like a third class compartment in an early suburban train. There is a hum of many voices, an increased squalling of babies, incessant attacks upon the telephone to find the whereabouts of defaulting dressers, and constant demands for more bandages, much blue wool and iodoform gauze. People get in each other's way, and there is not an available square inch of standing room anywhere. Kettles run dry, and fomentation wringers

are found in out of the way places, while everyone is searching for them.

Presently a great crash is heard—"Someone has blundered," and on the floor are seen the shattered remains of a bottle, technically known in the hospital stores as a "Winchester quart." That contained carbolic oil, which by reason of its exceeding slipperiness bids fair to convert the front surgery presently into a skating rink. Many willing hands help the penitent dresser who perpetrated the deed to repair the damage he has done, and soon all is right again. None too soon. The surging crowd in the doorway parts now to admit a stretcher borne by the inevitable policemen. The occupant is quiet, and the cover is drawn over it. Everyone who is near enough to see anything looks on with interest while it is withdrawn. A woman is lying there, and one of the policemen begins to tell how she fell down apparently in a fit just in front of him, when a voice from the crowd cries, "Oh, that's our old friend again. She always comes in when we are most busy. There's nothing at all the matter with her!"

Which proves to be the case; for being presently adjured to rise and walk, the well-practised malingerer slowly does so, not without a smile, as if even she had some grim sense of humour about her.

Two o'clock sees a distinct diminution in the crowds, and once more the broom makes its appearance and things get restored to their right places. The greatly harassed A.-H.-S. returns from his much-needed lunch, likewise the dressers, and after a short smoke, all get into harness again.

A good deal of work is done while the short December afternoon closes in all too quickly, and the doubtful daylight is exchanged for the electric light, and one incident follows another in rapid succession. Now a mother drags in a refractory small boy, roaring out lustily, to have his neck dressed. He kicks and screams, and requires to be held down forcibly by two or three people all the time.

"Go away, go away," he shouts. "Call a policeman, someone. He's going to shoot me!" as the brass syringe approaches, and his terror at the imaginary weapon is evidently unfeigned.

Quiet is not restored until the doors have shut behind him, and then they re-open almost immediately to admit another stretcher, with no malingerer on it this time, but a poor fellow with his foot crushed by a passing train and nearly severed from the leg.

"The theatre at once," is the rapid verdict, and very little time is lost in getting him there. He is soon taken away, and the interest excited by his case at once merges into a fresh channel, as a "poisoning" is brought in. The telephone quickly brings the H.-P. and clinical on the scene, and everyone works unitedly to try and save the man.

"How did it happen?" someone asks the attendant policeman. The answer is that the man was drunk, and took carbolic acid by mistake for gin. Took it to some purpose too, for it soon became plain that nothing can save him. The poison has its way, and in less than half an hour after his admission, he is lying there invested with the quiet dignity of the dead, and human aid can go no further. The waiting patients look at the stretcher with an awe-struck air as it is borne past them to the mortuary with its still burden, but they recover their interest in life with an astonishing quickness, and are quite ready to smile a few minutes after at the question of an old Irish lady, who, presumably seeking the women's surgery, enquires if she is right for the "Ladies' Saloon!"

Later on, the inner room of the "Ladies' Saloon" is the scene of two or three small operations, and while these are in progress, certain sounds of cups being washed by a domesticated ward clerk, suggest that tea time is nigh at hand.

A big, much-enduring family teapot is brought to be filled from the surgery kettle. Milk is fetched in a jug of doubtful cleanliness, and regardless of such minor details as saucers, teaspoons, and tablecloths, tea is announced to be ready, and gradually everyone drops in for a few minutes to the dressers' room, emerging now and then, to replenish the teapot, or wash a cup under the tap for some new-comer.

At five o'clock the women's surgery is closed, and the outer door bolted, a proceeding that seemed to raise considerable ire in a woman who hammers loudly for admission, and who, after being asked to go round to the front door instead, waxes rather abusive, and threatens to give information to the police.

After this the men's surgery fills up more rapidly than ever, and all the evening, work goes on steadily. Towards nine o'clock the number of babies and small children diminishes, and scalp wounds are very much the topic of the hour. Later still, black eyes, the results of drunken fights or frolics come in, and many of the happy homes of England send representatives of the "unity, peace, and concord" to be found in Boro' family life.

The tide of patients, however, is on the ebb now, and soon after midnight the place clears. Only a few stragglers appear at intervals, and at last the dressers for the week venture to go off duty.

The fire now burns low, and finally goes out. The throbbing pulse of our great hospital is comparatively still for a few short hours, until the tardy morning light awakens the busy workers once more to the fact that to-morrow has come, and that active brains and hands are needed to keep the vast machinery going smoothly through another day.

E. M. F.

Pass List, December, 1897.

University of London.

M.D. EXAMINATION.

D. A. Chaning-Pearce, C. J. Harnett, T. M. Thomas.

M.S. EXAMINATION.

F. J. Steward, E. C. Taylor.

B.S. EXAMINATION.

FIRST DIVISION.—C. H. Fagge.

SECOND DIVISION.—E. Fisk, C. R. Hodgson, G. K. Levick, G. E. Manning, W. T. Milton, G. E. Richmond, P. N. Vellacott.

University of Cambridge, Michaelmas, 1897.

FIRST EXAMINATION FOR THE MEDICAL AND SURGICAL DEGREES.

PART I.

CHEMISTRY AND PHYSICS.—H. A. Cutler, A. G. Harvey.

SECOND EXAMINATION FOR THE MEDICAL AND SURGICAL DEGREES.

PART I.

PHARMACEUTICAL CHEMISTRY.—H. Davies-Colley.

PART II.

HUMAN ANATOMY AND PHYSIOLOGY.—J. M. Brydone, H. Davies-Colley, T. P. Thomas, N. F. Ticehurst.

THIRD EXAMINATION FOR THE MEDICAL AND SURGICAL DEGREES.

PART I.

R. E. Delbruck, F. J. Lidderdale.

PART II.

F. A. Godson, C. Jephcott, W. J. Lindsay, R. Mathias, C. E. Michael, C. A. Trouncer.

Betts' Testimonial.

The following names and subscriptions have been sent in to the GAZETTE Office :—

	£	s.	d.
Amount already acknowledged	25	12	0
Dr. J. F. Goodhart	1	1	0
A. R. Adams	1	1	0
W. Arbuthnot Lane, H.S.	1	1	0
L. A. Dunn, M.S.	1	1	0
C. J. Symonds, M.S.	1	0	0
Chauncey Puzey	0	10	0
F. G. Stevens, F.R.C.S.	0	10	0
W. C. C. Pakes, F.R.C.S.	0	7	6
J. Rand, F.R.C.S.	0	5	0
I. Renal Atkinson, M.D.	0	5	0
Charles Spurrell, M.D.	0	5	0
Rev. C. H. Bowden	0	2	6
M. W. Oldham	0	2	6
A. Allport, M.R.C.S.	0	2	6
H. S. Desprez	0	2	6
A. P. Allen, M.B.	0	2	6
S. Whicher, M.B.	0	2	6
Total ...	£33	13	6

It has been decided now to close the fund, but if during the next few days any further subscriptions are forthcoming, they will be added to the list. In the meanwhile Mr. Betts will be consulted as to the form that he would prefer the testimonial to take. It is requested that any inaccuracies in the list be at once noted to the Editor.

Notes from the Tropics.

EVEN here one is not safe from the ever-grasping pen of the diligent Editor, seeking whom he may next entangle in his journalistic net. When we—at a spot some 23° E. longitude, 20° S. latitude—first read the historical words of the great Canadian, inspired by the straits in which the Mother Country—nay, the Empire itself—then appeared to be, our bosoms heaved with sympathetic pride, and something like a lump, other than Adam's apple, rose in our several throats. Was not this, indeed, an "outpost"? Did not we in actual fact enjoy and realize to the full, as an unit of that Empire, "a splendid isolation"? Who shall blame, then, the answering thrill that echoed in our hearts?

Ours was an isolation, indeed. Five hundred miles from the nearest approach to civilisation, and well nigh double that distance from the nearest railway station; encircled by almost limitless expanses of sand and waterless, barren country; for six months in the year exposed to the deadly taint of a sickly season, which e'en the boldest and most indifferent might shrink from absolutely, but for a minimum and uncertain supply of local corn and mealies; dependent on "down-country" sources for even a necessary food supply; the doubt—a reasonable one, indeed—of food supplies arriving at regular intervals, or not at all, perhaps, owing to the enormous difficulties of transport (brought about by heavy sand, scarcity of water and of grass for our animals, thick bush, the presence of lions and wolves, and other beasts of prey, at odd corners)—all these, and many more minor obstacles, surely co-operated to make an isolation, whether it be splendid or not, such as few men could dream of. And yet in the midst of this desolation we reckon not without a "Weekly Mail," which by the same token is carried by two wretched Bamangwato boys, and is rarely more regular than once in ten or twelve days. Last rainy season the mail service became completely disorganised, and nine solid, weary weeks elapsed without news of any sort, except the cheerful intelligence that more Bushmen were dying, or that another "white man" had succumbed to the prevailing fever! Well, surely this was "isolation" with a vengeance! And now comes an *appeal for help*—for help not only to others *outside* of our jurisdiction, but to the Mother Country itself. So down comes the beautiful idea around which we had in imagination built up a glorious and inspiring Thing—we call it Thing for want of a better name—bringing with it the Thing, no longer a singular Thing, but a plurality of insignificant, shattered little things down with a crash, and we awake to the fact that we are only ordinary individuals, and that we don't live under such extraordinary conditions after all. Now, all this may be quite intelligible to Mr. Editor, but it must be Sechuana to those not "in the know." None the less, let those who don't know ask those who do know, and those who do know, of course, don't require to be told. And here's an end on't.

Seriously, there are lots of Tropical Notes writ large above—here, one or two more for this post to take along. Talking of the "sickly taint," another season is rapidly approaching. Last rainy season was an exceptionally bad one for the whole of the South African Continent. In the "unfortunate" gold-bearing districts of the Transvaal there was much distress and death. Firstly, owing to the Rinderpest—hundreds dying from the evil effects of eating Rinderpest carcasses, even to the *skins*—but largely owing to the severity of the fever, most of which appears to have been malarial and dysenteric, though probably there was enterica as well. Rumour reckons the number of deaths from "fever" in the Anglo-Dutch Republic—so should it be in name and nature—by hundreds, and there seems no doubt that there was a case-mortality much above the average. In that unhappy country, Rhodesia, of course, many met an untimely end by the violence of butchery or of war, but the death-roll from fever was also heavy. In that part of South Africa where the writer is "isolated" there were in all nine deaths from all causes in a migratory white population of fifty-six (56) persons, seven being due, directly or indirectly, to malaria, one to dysentery, and one to violence. As regards the case-mortality, it is only possible to record a few statistics. In one locality, amongst both white and black men, ninety-five *cases* of malarial fever came under treatment, and there were three deaths. Two of these cases had been unable to obtain any sort of medical treatment until too late. Now, this is perhaps a bad record, but what shall be said of Damaraland (German South-West Africa), at one German station of which it is asserted on good authority that eighteen out of a total detachment of forty police, including one or two medical officers, died of "fever." Damaraland hitherto had been considered to be a very healthy country, and malaria was unknown in some parts, so that there is every evidence to show that last season's malaria was unprecedented so far as Africa south of the Zambesi River is concerned.

A diligent enquirer after "causes," "ætiology," etc., of disease in general is not likely to overlook his requirements in this instance. At first sight it would appear that many parts of the South African Continent are natural health resorts. There are in many directions great flats or plateaux stretching for miles and miles, at an elevation, roughly speaking, between 3,500 and 5,000 feet above sea-level. These flats are generally of a more or less sandy (in some cases decidedly *more*) nature, with an impervious basis. They are not, except in limited patches, thickly clad with vegetation, and there is a very limited supply of surface-water—so much so that in the dry parts of the year a traveller may have to negotiate an eighty or a hundred-mile "thirst," owing to the "wells," "pits," or "oleys" having dried up. The air is wonderfully dry and bracing, notably so on the Karroo and in the Kimberley district, and save for violent sandstorms and thunderstorms—not to speak of the trifling disappointment at being unable to obtain fresh eggs, butter or milk at breakfast—the climate appears to be a desirable one, for the ordinary fog-besmothered Londoner, at any rate. Some observers have readily fallen into the error of supposing that because during the three or four years previous to '96–'97 the malarial taint has undoubtedly materially diminished in vigour and in extent, therefore that South Africa is soon going to be rid of malaria altogether. This hypothesis was very soon found to be no longer feasible when it was seen that there was to be a heavy rainfall in '96–'97. In the previous unhealthy seasons there had been almost a drought, consequently the conditions that were tending to minimise the evils of malaria for the time being, would, as soon as a heavy rainfall took place, be operated upon to produce an exceptionally severe unhealthy season.

The conditions were, indeed, similar to those met with in other tropical countries. In the various parts of the Continent, the loose sandy soil had become gradually more contaminated with decaying vegetable and animal matter—the latter in respect to the excreta of game, etc. With this admixture there had been also an increasing diminution of the surface-water, consequent upon the failure of the rains to maintain the usual level from year to year. Then came a heavy downfall of rain. Consequent upon this, the general elevation of the subsoil water, and an excessively hot sun with the incidence of the rains, and so an awakening of the conditions which formerly had existed with mild regularity from year to year. Take this, with the fact that throughout the major portion of the country the Rinderpest had literally raged, leaving in its track thousands upon thousands of carcasses of domestic and wild animals, which had mostly been allowed to rot on the veldt or to be swallowed up in the colonial rivers, and is it to be wondered at that the unhealthy season so lately passed should have been anything else but severe both in its extent and its general distinctiveness?

One other topic. Of late there has been much talk of the wonderful benefits to be derived from the South African climate. This is true enough in some respects, but a point not generally overlooked in regard to the case of invalids by climatalogical treatment, and which should be specially inquired into in South Africa, is in the matter of travelling comfortably and living well. In the former case it is generally accepted that South Africa is quite able to hold its own, there being very comfortable saloons on most of the trains from Cape Town. But it is often extremely difficult to obtain quite ordinary meals at the various stopping-places on the journey. In regard to "living," wherever there are good and well-established sanatoria, invalids should have little to fear. It was proposed to open a sanatorium at Kimberley in September last, and from an attractive advertisement in the *British Medical Journal* it would appear that this Kimberley Sanatorium, "founded by the Right Hon. C. J. Rhodes (Chairman of De Beers Consolidated Mines, Ltd.)," etc., etc., "is to be a health resort for those suffering from incipient Disease of the Chest and Throat." There is a characteristic (De Beers)

committee of management—everything, of whatever nature, round De Beers being essentially dependent upon the great monopoly, which just allows the town of Kimberley to exist. Of course, with such a go-ahead committee we may fairly assume that the disgusting and highly insanitary system for the disposal of sewage adopted in the town and district has been, if not done away with, at least so reorganised that the sewage disposal is now carried on with a minimum of danger to those "suffering from incipient disease" of no kind. When the writer was last in Kimberley, the "system" consisted of a house-to-house collection of the daily excreta, which was conveyed through the streets of the town in a very leaky and old wagon. The result was that a trail of sewage dropped from the cart wherever it went, and that the streets were rendered absolutely disgusting to those whose pleasure or business called them there at night. The "droppings," of course, dried up, becamed pulverised by the traffic, and were finally scattered by the next sandstorm broadcast over the town. In fact, a more insanitary and primitive method of sewage disposal could not be imagined. The water supply in the "best hotel" was by no means such as would command the respect of an average Englishman, and although the request was continually made for fresh eggs at breakfast, your present correspondent never succeeded in getting one during his six weeks' stay. The milk, too, was not surely always *direct* from the cow, and the butter looked and tasted suspiciously like imported and tinned Danish! However, no doubt these things will be managed differently in the Sanatorium, and perhaps already the town is possessed of the very latest improvements in the matter of water supply and general sanitation.

In this town typhoid fever was very prevalent then—April, 1896—and the disease appeared to have a high mortality. From typhoid to malaria and "camp" fever is not such a wide step. In a recent number of the *B.M.J.* a report of a meeting of the Griqualand West Branch of the B.M.A. appeared, at which meeting "The President (Dr. Mathias) read a paper on the Causation and Prophylaxis of Camp Fever, and urged that this fever was truly malarial in its nature, and suggested that to a large extent it was due to a large 'pan' lying to the north-west of Kimberley, and advised that this 'pan' should be prevented from receiving *the drainage of the town*,* with a view to drying it up." Here is a statement which proves pretty clearly how imperfect are sanitary matters in Kimberley. It behoves us, therefore, to carefully enquire into the existing sanitary conditions in and around Kimberley, and to ascertain what improvements, if any, have been made in these respects, before we advise those of our patients who may be "suffering from incipient disease of the chest and throat," to make of Kimberley a "health resort."

Sala Sentle,
October 20th, 1897.

Vide B.M.J., July 17th, 1897, p. 177. The italics are omitted in the original.

Novelties.

MATERIA MEDICA, PHARMACY, ETC.

PURE COCOA.

The increase in the use of cocoa might be cited as one of the characteristics of the Victorian Era. Prior to 1831 the quantity consumed in this country only amounted to 500,000 lbs. In 1890 the figures were 20,224,175 lbs.

The chemical composition of the seeds of Theobroma cacao is well known. They contain about half their weight of fat—the Oleum Theobromatis of the British Pharmacopœia—13 per cent. of starch, which during the process of roasting is partly changed into dextrine and sugar, and about one per cent. of Theobromine. Cocoa is, therefore, a fatty and a proteid food, and to some extent a carbohydrate food also, and the small amount of Theobromine present acts as a restorer of muscular activity.

The large amount of fat present in the cocoa-seeds renders a beverage prepared from them too rich for most digestions. Hence there are two methods of preparing cocoa—(1) That in which the reduction of the fat is secured by adding starch and sugar, and (2) That where the fat is partially removed. Our ideal of pure cocoa, as a food and muscular stimulant, is the article made by crushing the cocoa-nibs and depriving them of about two-thirds of their fat, and grinding them to an impalpable powder, which is easily miscible with water. The flavour of pure cocoa depends upon a small quantity of volatile oil, which appears to be developed during the process of roasting. Special precautions are necessary during this operation to ensure the production of an agreeable flavour.

The cocoa of commerce is largely adulterated with the different starches of the cereals, potato, arrowroot, etc. Sugar is also added, and sometimes mineral matters.

Cocoa has largely appeared in the advertising world of late, and mixtures of various substances, such as hops, kola, etc., have been extensively puffed. We cannot imagine that our ideal pure cocoa—a perfect food in itself—can be improved by such additions. In fact, we are of opinion that its dietetic value would be altered, and that it would become a medicinal preparation.

Sport.

Rugby Football.

GUY'S AND ST. THOMAS'S v. BLACKHEATH.

This match took place at Blackheath on December 4th, in pleasant weather. The game, though fast and even, was from some points of view unsatisfactory. Though the Hospitals are to be congratulated on making so close a fight of it, some part of their success must be attributed to the mediocre play of their opponents, who were far from showing their best form. The first half of the game was uneventful, neither side making any impression on the other's defence. In the scrummage the teams were very well matched. The Hospitals' forwards made several fine rushes, but were stopped by Wallis and Robinson. Bingham's dribbling was particularly admirable; nevertheless the backs had very few opportunities of attacking, the halves being engaged in watching their rivals. Alexander, who did himself justice throughout the game, made some dashing runs, besides kicking finely. Towards

the end of the first half, Blackheath did better in the scrummages and invaded the opposite twenty-five, but were repelled by Alexander and Sime. On changing over they once more fell away, heeling so slowly that the halves were smothered before they could get away. Once or twice Robinson tried to break through, but had to make his own openings, and was very well tackled. Blackheath had a little advantage on the whole, and at last the halves and Whetham managed to get the ball out to Wallis, who, by dodging skilfully, managed to score far out, the try being unconverted. Subsequently Robinson ran in, but was met by Ransford and lost the ball before he could touch down. The Hospitals' forwards now played up splendidly, and with Bingham again in the van, made some threatening rushes, which were with difficulty met by the Blackheath three-quarters. Alexander and Greg supported the attack, and through their efforts the scrummage was again and again formed near the goal line. Just when it appeared that the attack was likely to prevail, the whistle sounded and Blackheath were able to leave the field victorious by a try to nil. Team :—

HOSPITALS.—A. C. Ransford (back); L. H. Hanbury, A. H. Greg, K. B. Alexander, F. W. Sime (three-quarter-backs); F. C. Wetherell, H. R. Bateman (half-backs); R. C. Mullins, D. H. Traill, H. A. Cutler, F. M. Bingham, A. E. Martin, H. C. Thorp, H. T. James, F. J. Cuningham forwards).

GUY'S v. LONDON SCOTTISH.

This match took place at Richmond on December 18th. Unfortunately there was a bad fog, and we were unable to play full time. The result of a goal in favour of Guy's was satisfactory. At the start the play was confined to the forwards. Once or twice the ball was worked out of the scrummage by the Scottish pack, and some pretty passing on the right wing looked dangerous. Guy's then attacked hotly, and Sime all but got over twice. Wetherell, too, nearly scored, but ends were changed without any advantage being claimed by either side. Very quickly in the second half Guy's assumed the offensive, and after five or six minutes' play, Wetherell got the ball from a scrum, and dodging smartly, passed to Sime, who got a try between the posts, which Cutler easily converted. The Scottish forwards then played very hard and kept Guy's in their ground. Relief came by a good rush down the ground, and from now till the end Guy's pressed hard, and Wetherell dropped a goal, but the referee ruled that the ball had been picked from the scrum. Several scrums were formed right on the Scottish line, but try as they could, Guy's couldn't add to their score, so they won by five points to nil. Team :—

GUY'S.—A. C. Ransford (back); F. D. S. Jackson, C. D. Pye-Smith, F. W. Sime, F. J. Pierce (three-quarter-backs); F. C. Wetherell, F. E. Walker (half-backs); R. C. Mullins, F. G. Gibson, D. H. Traill, A. A. Smith, H. A. Cutler, F. R. Featherstone, R. C. Lawry, H. V. Bagshawe (forwards).

Appointments.

CIVIL.

BURTON, C. G., M.R.C.S., L.R.C.P. Lond., has been appointed House-Surgeon to the North-Eastern Hospital for Children, Hackney Road, N.E.

BUTCHER, H. O. F., M.R.C.S., has been re-appointed a District Medical Officer for the Ware Union.

CAMPBELL, H. J., M.D. Lond., M.R.C.P., M.R.C.S., has been appointed to the joint Lectureship in Forensic Medicine in the Medical Department of the Yorkshire College.

FOSTER, J. J., M.R.C.S., L.R.C.P. Lond., has been appointed House-Physician to the North-Eastern Hospital for Children, Hackney Road, N.E.

HULL, A. J., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Clinical Assistant to the Hospital for Women, Soho Square.

MOSS, E., M.D. Lond., L.R.C.P., M.R.C.S. Eng., has been appointed Medical Officer for the Workhouse of the Wrexham Union, *vice* E. Davies, deceased.

REID, E., L.R.C.P. Lond., M.R.C.S., has been appointed Pathologist to the Swansea Hospital.

STEPHEN, L. H. Y., M.R.C.S., L.R.C.P. Lond., has been appointed House-Surgeon and Secretary to the Royal Ryde Infirmary and County Hospital.

STEVENSON, THOMAS, M.D., F.R.C.P. Lond., has been appointed an Examiner for the Diploma of Public Health at the University of Cambridge.

VELLACOTT, P. N., M.B., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed House-Surgeon to the General Hospital, Stroud.

NAVAL AND MILITARY.

SURGEON SYDNEY CRONEEN, R.N., has been appointed to the Impregnable.

SURGEON-CAPTAIN H. ST. G. HORE, A.M.S., has been posted to Rawal Pindi, Punjaub.

SURGEON-LIEUT.-COLONEL P. A. WEIR, M.A., M.B., I.M.S., (Bengal), Residency Surgeon and *ex officio* Assistant to the Resident in Nepal, is appointed to be Agency Surgeon in Baghelkhand.

SURGEON-LIEUT.-COLONEL J. S. WILKINS, D.S.O., I.M.S. (Bombay), is promoted to be Brigade-Surgeon-Lieutenant-Colonel. He served in the Afghan War in 1880, taking part in the march to Candahar with the force under Major-General Phayne (medal); and with the Burmese Expedition in 1886–7 (mentioned in despatches, medal with two clasps).

The gallant conduct of Surgeon-Captain G. W. Beyts, during the operations of the Kurrum Valley, under General Yeatman Biggs, in carrying out of action, when severely wounded, Lieut. Louis A. North, Royal Scots Fusiliers, has received special mention in despatches, and we trust our military contemporary, the *Army and Navy Gazette's* prediction that Surgeon-Captain Beyts "is certain to be rewarded by the bestowal of the Victoria Cross," will prove correct.—*British Medical Journal.*

Births.

LUCAS.—On December 23rd, at 50, Wimpole Street, W., the wife of R. Clement Lucas, B.S., M.B., F.R.C.S., of a son.

MUSPRATT.—On December 22nd, 1897, at Tantallon, Madeira Road, Bournemouth, the wife of Charles D. Muspratt, M.D., of a son.

WILSON-SMITH.—On December 22nd, at Kidbrooke Lodge, Bath, the wife af T. Wilson-Smith, M.D., of a daughter.

Deaths.

BRIGHT.—On December 29th, 1897, at Alvaston, Park Hill, Forest Hill, of pneumonia, Christopher David, fifth son of John M. Bright, M.D., aged 20.

CHARTON.—On December 13th, at Oaten Lawn, Birkenhead, Henry Churton, M.R.C.S., of West Mount, Chester, coroner for West Cheshire and Birkenhead for 57 years, aged 84 years.

ED.—F. E. W.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold, will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

January.

Sat. 22.—Mr. Davies-Colley's take-in; Drs. E. A. Long-hurst and R. Michell; Cl. C. R. Hodgson.
1.15 p.m., Clinical lecture by Dr. Taylor.
G.H.R.F.C., I., Rosslyn Park, home.
II., L. & W. Bank, away.
G.H.A.F.C., I., Cheshunt, home.
G.H.P.P.S.—Clinical evening.

Mon. 24.—1.30 p.m., Clinical lecture by Mr. Lucas.

Wed. 26.—Mr. Lucas's take-in; Drs. E. W. S. Rowland and F. E. Walker; Cl. F. E. Fremantle.
G.H.A.F.C., I., Civil Service, home.
Disguysed Minstrels at Anerley.

Sat. 29.—1.15 p.m., Clinical lecture by Dr. Taylor.
G.H.R.F.C., I., Catford Bridge, away.
II., Brockley, home.
G.H.A.F.C., I., Tunbridge Wells, away.
II., Old Cranleighans II., home.

Mon. 31.—1.30 p.m., Clinical lecture by Mr. Lucas.

February.

Tues. 1.—Disguysed Minstrels at Tunbridge Wells.

Wed. 2.—Mr. Golding-Bird's take-in; Drs. R. H. J. Swan and F. O. Turner; Cl. P. Turner.

Thurs. 3.—Disguysed Minstrels at Brixton.

Sat. 5.—1.15 p.m., Clinical lecture by Dr. Taylor.
G.H.R.F.C., I., Leicester, away.
II., Croydon, home.
G.H.A.F.C., I., Ewell, away.
II., Ewell "A," home.
G.H.P.P.S. "The Pathology of the Thyroid Body." A. H. Kirkman.

Guy's Hospital Gazette,

JANUARY 22, 1898.

Serum Treatment of Disease.

A Paper read before the Physical Society on December 11th, 1897, by Mr. F. DOUGLAS TURNER.

MR. PRESIDENT AND GENTLEMEN,—The subject which I have the honour to bring before you this evening, viz., the Serum Treatment of Disease, constitutes one of the greatest, if not the greatest, advance in the treatment of disease which medical science has made in recent years, and proves more than ever how much medicine is dependent on scientific experimental investigations for its knowledge both of disease itself and of the best means of curing that disease.

Serum treatment is founded on the generally established fact, that susceptible animals, sufficiently protected so as to reach the highest possible degree of immunity from infection with a certain particular pathogenetic bacteria, or from intoxications with their products, are capable of supplying a serum, which, injected into other susceptible animals, will protect them also against like infections or intoxications, and even, when injected after early symptoms of these have appeared, may bring about the cure of the diseased animals.

Practical application of these laboratory experiments has opened up a new method of treating diseases due to bacteria or their toxines, which consists in the injection of curative substances obtained from the blood of highly protected animals, into diseased individuals. Since these curative substances are contained in the blood-serum, this method is called "Serum Treatment," and theoretically it seems applicable to all bacterial diseases.

I propose, firstly, to give a short history of the development of this method of treatment, then to describe the preparation of a typical serum containing the antitoxine, and finally to briefly and separately consider its application and results to the various diseases in which it has as yet been tried. It is quite impossible within the limits of a paper like this to give any account of the various theories of the formation and action of the anti-poisonous bodies. The whole matter is largely theory, and no definite conclusion has been as yet generally accepted. History shows that very early, people had dim ideas on the power of the body to gradually become accustomed,

and so immune, to various poisons. Pliny states that a certain king, fearing treachery, was in the habit of eating various poisons to attain immunity, and that he kept a poison-eating duck, so that a supply of antitoxic substance might be at hand if necessary. Snake charmers in India have long been accustomed to swallow small doses of venom, and so have gradually acquired immunity to snake-bite. Valli, an Italian physician, in the early part of the present century, showed that immunity against rabies could be conferred, by administering through the stomach, progressively increasing doses of hydrophobic virus. But it is to Pasteur that the possibility of a scientific investigation of the subject is due. It is to him we owe the discovery of the microbic theory of disease, on which all our knowledge is founded. He also discovered the possibility of producing immunity to specific bacteria, by inoculating animals with weakened cultures of the particular germ. In 1887, Salmon and Smith showed that it was possible to protect, not only against infection by inoculations of living bacteria, but also by inoculations of their products or toxines. In July, 1889, Babès and Fepp, from experiments on the blood of dogs vaccinated against rabies, which blood was capable of conferring a certain amount of protection on other animals, concluded that there was a possibility of vaccinating with the fluids and cells of animals rendered immune to a disease. Their experiments, however, are of rather doubtful value.

But the first publication clearly demonstrating the principles of serum treatment, was made by Behring and Kitasato, on December 4th, 1890, in an article in the *Deutsche Medicinische Wochenschrift*. In this the protective and curative properties of the blood and blood-serum of artificially immunized animals was demonstrated for tetanus, and the application of the same principle to diphtheria was indicated in the same article, and in another published the following week. The first public announcement of the power of the blood-serum of animals artificially immunized against diphtheria to *protect* and *cure* susceptible animals inoculated with diphtheria bacillus or its poison, was made by Behring, in a report to the International Congress of Hygiene at London, in August, 1891. In the Autumn of 1891, the first trial in man of the new serum for treating diphtheria was made in von Bergmann's clinic in Berlin, but it was not a success, the serum used being excessively weak.

In 1891, also, Ehrlich applied this new principle successfully to the protection and cure of animals against poisoning with the vegetable toxalbumens, abrin and ricin.

It was not till early in 1893, that Behring obtained a stronger serum, and even this was so weak that his weakest serum now is sixty times its strength. By April he had treated thirty cases of diphtheria, of which twenty-four recovered and six died.

Gradually the serum was obtained of greater strength. In April, 1894, Heubner published cases treated, but did not think the serum of any use. In July, 1894, Baginstey published 163 cases treated, with a death rate of 12·9 per cent., an extraordinary decrease on the figures of previous years. Although the general principles of the new treatment and its human application were thus fully established and in active operation, it was not till Roux delivered his memorable address before the International Congress of Hygiene at Budapest, in September 1894, that the attention of the great body of physicians throughout the world was arrested, and the question of the healing power of the diphtheria antitoxin became the foremost question of the day. Roux had treated 448 cases, reducing his death rate from 51 per cent. to 24 per cent.

In 1894 also, Caletta applied the same principle to snake venom, and proved, experimentally on animals, the possibility of obtaining a serum *curative* for snake bite.

From then onwards this new method of treatment has been extended to an increasing number of diseases, and all over the world establishments have been set up for the preparation of curative serums and the experimental investigation of their uses and results.

Preparation of Antitoxine.—The following is an up to date description of the preparation of diphtheria antitoxin, the points of difference in the preparation of the other antitoxins will be indicated under their respective headings. The steps are:—(i.) Preparation of the right kind of culture; (ii.) preparation of a powerful diphtheria poison or toxine; (iii.) testing of the toxine; (iv.) inoculation of the horse; (v.) bleeding the horse; (vi.) separation and filtration of the blood serum; (vii.) estimation of the strength of the antitoxic serum; (viii.) bottling the serum. The means now used are the result of past experience and are to a large extent quite empirical.

Bacilli taken from a very virulent case of diphtheria, will often, when cultivated, not give the least trace of toxine. For this reason, the bacilli now used for the preparation of toxine in nearly all the laboratories of Europe are direct descendants of Behring's original cultivation. These produce a strong toxine. A 24-hour culture of these is first prepared in test-tubes. From this the bacilli are planted out into flasks, not in the usual fashion by means of a platinum loop, but a Pasteur pipette full of the test-tube culture is taken and is added to each of the flasks. The flask now used is a round flat one, the bottom of which is covered to a depth of a quarter of an inch with the culture fluid. This fluid consists of a mixture of two parts of ordinary broth and one part of a mixture of equal parts of normal horse-serum and ascitic fluid. In its preparation the broth must not be heated above 40°C. or the heat will destroy the meat extractives, creatine, etc., which in some way help to produce stronger toxine. To the mixture 5·8 cc. normal caustic potash per litre are added, for the fluid must be alkaline. The flasks are corked with a plug of sterile cotton wool and are then kept in an incubator at a temperature of about 35°C. for from five to seven days. During this time the germs are excreting their poisons, and by the end of it the

culture contains such a powerful toxine, that 75 cc. when injected kills a guinea-pig 250 grammes weight in 48 hours.

A typical diphtheria culture shows a pellicle on the surface and a deposit at the bottom of the flask. The pellicle consists of actively-growing germs, and some of these from time to time sink to the bottom and form the deposit. The flasks used, where no active growth is going on, the area of glass, and even the glass itself, seem to have a particular though unknown effect on the production of toxine. Formerly, a deep flask was used, and air was continuously bubbled through the culture; later, large flat flasks were used, and air was passed over the surface of the culture. Later still, a number of small conical flasks, stoppered with cotton wool, and two-thirds full of the medium were used. Within the last few weeks, in England, though previously in Paris, a round flat flask has come into use, the bottom of which is covered to a depth of a quarter of an inch with the culture medium, and the openings of which are plugged with sterile cotton wool. The form of flask now adopted has been decided on, after numerous experiments, as the one to give the most virulent toxine. As to the glass itself, Ehrlich had one test tube, in which the toxine prepared was always much stronger than that in any other test tube. This was tried many times and the result was invariably the same, until one day somebody boiled the test tube and its peculiar property was gone for ever. At the end of from five to seven days in the incubator, the culture is filtered through a porcelain filter. The porcelain retains all the bacilli and the filtrate is absolutely free from them. The culture can be filtered by making it pass through the porcelain by means of pressure from without, or by creating a vacuum inside the filter and so sucking the filtrate through.

The fluid filtrate is then heated to 65° C. for two hours, in order to destroy the toxic ferments contained, leaving only the toxic albumoses active, and it is then known as "serum toxine." Besides serum toxine, which is only used in the earlier stages of the inoculation, a broth toxine is prepared. The broth is not heated at all in its preparation and is sterilized by filtration. Using this broth, toxine is obtained so powerful that $\frac{1}{150}$ cc. is a fatal dose for a guinea-pig.

Broth cultures are planted out, grown in the incubator, and filtered in the same way as the serum cultures, but after filtration, the broth toxine is not heated, so that it still contains the toxic ferments. The toxine is then tested, to ascertain its fatal dose for a guinea-pig.

Its injection produces local infiltration, loss of weight and death. The toxine is then kept till wanted in a large flask away from the light, with a layer of toluol on the top of the fluid, the air in the flask and that dissolved in the fluid being all replaced by bubbling sterile hydrogen through it for half-an-hour. But it is not now the custom to keep the toxine long before using it, for it is found that if kept the toxines become converted into bodies called toxoids, so that a horse inoculated with kept toxines furnishes chiefly an antitoxoid serum, only partly an antitoxic serum. Now, in diphtheria the toxines are responsible for the general constitutional disturbance, the toxoids for the local disturbance and effusion, and this explains why, as has so often been found, a patient may die of the constitutional symptoms although the membrane is being rapidly got rid of. The membrane has been acted on by the antitoxoid serum, but there was not sufficient antitoxic serum present to counteract the toxines.

A fairly well-bred horse in good condition is then chosen. It is injected with mallein to prove it free from glanders. Tuberculin is not now used, as tuberculosis is rare in horses. Injections of toxine are then made into the subcutaneous tissues of the neck or back of the horse, with every aseptic precaution. For about the first fortnight serum tissue only is used in gradually increasing amounts; after this, broth toxine is used, only 2 cc. at first, but the amount soon increases until at the end of another month 2,000 cc. of broth toxine can be injected in one day. Thus, by means of these injections the horse has gradually become so immunised, so that it can now stand 400 times the fatal dose of broth toxine. Besides that, its blood possesses gradually rising antitoxic properties. The injections are stopped from time to time and blood is withdrawn to test its antitoxic value.

Table showing actual injections made for a certain horse and the value of its serum at different dates.

1897.			
July	21.	40 cc. serum toxine.	
	24.	100 "	
Aug.	3.	100 "	
	5.	250 "	Value of serum 25 units per cc.
	7.	5 cc. broth toxine.	
	10.	10 "	
	12.	25 "	
	14.	40 "	
	18.	100 "	
	21.	150 "	
	23.	250 "	
	25.	450 "	
	27.	300 "	Over 150 units per cc.
Sept.	6.	650 "	
	9.	650 "	
	15.	700 cc. serum toxine.	
	20.	300 "	250 units per cc.
Oct.	10.	1050 cc. broth toxine.	
	16.	1400 "	
	19.	1000 "	Over 380 units per cc.
	29.	1600 cc. broth toxine.	
Nov.	1.	2200 "	
	2.	2500 "	Over 500 units per cc.
	15.	2000 "	
	28.	500 cc. new broth toxine.*	
	30.	1000 " "	700 units per cc.
Dec.	7.	1500 " "	

* Prepared as described. Is double the strength of old broth toxine, which was prepared by heating.

Serum toxine is used at first, because it does not contain the ferments, which cause a much more severe reaction than the albumoses. Therefore, the reaction being less, much larger amounts can be injected in a much shorter time, and so the time of immunisation is enormously lessened. Formerly when weak broth toxine alone was injected, it used to take a year's work to get a serum containing 100 antitoxic units per cc., and this was the most powerful serum obtainable. Now a serum containing 50 units per cc. is obtained after a fortnight's immunisation; in a month a serum containing 150 units, in two months 250 units, and in four months over 600 units per cc. After the early and the later large injections, there is some local reaction, fever and temperature, the horse falls ill and loses weight, but this reaction generally passes off within twenty-four hours. After the last injection of toxine that is going to be made, the horse is left for seven days before being bled, as before this the blood still contains toxic substances.

The horse is bled from the jugular vein which runs in a grove, formed by muscles, down the neck. After shaving and cleaning up the skin, a sharp scalpel is run through it and the subcutaneous tissues in this grove, and so the vein is opened. One end of a cannula is then introduced into the vein and the other end passes into a large sterilized glass jar, the blood thus running into the jar without ever coming in contact with the outside air. About 8 litres of blood are generally withdrawn at one time, and this produces a varying quantity of serum, up to a maximum of about $3\frac{1}{2}$ litres. A couple of superficial catgut sutures, bringing the edges of the wound together, are quite sufficient to stop all bleeding. The vein does not become blocked, and the same vein may be opened again and again.

The jars containing the blood are then set aside in a cool chamber for twenty-four hours, for the clot to form and the serum to separate. The serum is then poured off into a sterile vessel and is filtered. It is then tested to determine its antitoxic power, and finally measured out into sterile bottles, which are immediately sealed, and so the preparation is complete. The bottles contain from 3 to 4 cc. of serum, and from 1500 to 2000 units. Throughout the processes, the most minute precautions are taken to prevent the serum ever once coming in contact with anything not previously sterilized. The horse must from time to time receive fresh injections of toxine in order to maintain its antitoxic power, but after a variable period (12-18 months) this power, in spite of the fresh injections, gradually decreases until the serum becomes of no use, though the horse itself remains absolutely immune.

Testing antitoxin power.—Units. Up till quite lately Behring's "normal unit" formed the basis for setting the value of the antitoxic serums. As the serum is tested against fatal doses of toxine, and as toxines vary in strength, it has become the custom, in order to insure unanimity, to previously standardise the toxines used to correspond in value with Ehrlich's standard toxine, of which 0·23 cc. is ten times the fatal dose for a guinea-pig of 250 grammes weight in 24 hours. Bearing this in mind, Behring's unit may be defined as follows:—"A serum, of which 0·1 cc. neutralises completely 0·23 cc. of Ehrlich's toxine, contains one unit cc." Now, however, Ehrlich has brought out a new unit, which has also come into use in England. This may be defined as follows:—"A serum, of which 1 cc. when mixed with 100 times the fatal dose of toxine, protects a guinea-pig of 250 grammes weight from death within four days, contains one unit per cc." In order to test the antitoxine, different guinea-pigs are injected with a mixture of toxine and varying amounts of antitoxine. Weight and condition are noted for four days. In those dead within four days, the amount of antitoxin used has been too small. The smallest amount of antitoxin which preserves over this time, gives the antitoxic value of the serum; thus, if $\frac{1}{385}$ c. of antitoxin just tided the guinea-pig over the fourth day, the serum would contain 385 units per cc. Serums tested by Ehrlich's new method contain on the average 150 units per cc. less than when tested by Behring's method. It is a more accurate method than Behring's.

Diphtheria.—There are two ways in which the usefulness or otherwise of any new remedy may be determined, viz., by taking the statistics of the results of its use, or by considering the general consensus of opinion of those using it.

TABLE SHOWING METHOD OF TESTING ANTITOXIN.

			24 hours.	48 hours.	72 hours.	96 hours.
A 250	·8 cc. T+·0025 cc. serum ...	1/400 cc. ...	+230	+large 222 ill	+215	Dead
B 250	·8 cc. T+·0026 „ ...	1/385 cc. ...	+230	+large 223 ill	+214	+204
C 250	·8 cc. T+·0028 „ ...	1/357 cc. ...	+240	+226	+217	+220
D 265	·8 cc. T+·0029 „ ...	1/345 cc. ...	+slight 255	+253	+257	+269
E 270	·8 cc. T+·003 „ ...	1/333 cc. ...	+slight 260	+ slight 255	+258	+285

Letters = guinea-pigs. Numbers = weight in grammes. Second column shows amount of injection of toxine and antitoxine. B died on fifth day; C, D, E, recovered.

Taking the statistics for diphtheria, and cutting out duplicated cases, I have obtained results of 55,540 cases treated by means of the antitoxin serum, having an average death rate of 16·15 per cent. Excluding from these, however, all statistics where the death rate previous to the use of serum is not given, there remains 30,559 cases with 5,093 deaths, or a death rate of 16·66 per cent. Supposing the death rate had in these cases remained the same as it was before the use of serum, there would have been 11,143 deaths, or a death rate of 36·46 per cent. A lowering of the death rate from 36 per cent. to 16 per cent. cannot be a mere coincidence, nor were the figures picked to suit the purpose. It is certainly not that the disease was of a milder character, for over and over again it is expressly stated that the cases were just as severe as those of former years. The remarkable, though now well-known figures from Baginsky's Hospital, in which the death rate, reduced by the use of serum to 15·6 per cent., immediately rose to 48 per cent. when the supply ran short, and as quickly fell again to 15 per cent. when more serum was obtained, help to prove this.

There are probably fallacies in a mere lumping together of figures, but they would hardly be sufficient to account for this remarkable diminution of the death rate. In only one of all the reports making up these figures was there an increase of the rate. In the majority of the reports no figures are given as to the date of beginning treatment, but where these figures are given, they not only point towards, but actually proclaim the fulfilment of Behring's prophecy that, in cases treated in the first two days, the death rate would be under five per cent. Coming to the opinions formed of the serum treatment by those using it, it is impossible to doubt that its healing value is far beyond that of any other line of treatment whatever. There is a practically universal concensus of opinion in its favour, and it is usually those who have had most experience of it who are most enthusiastic about it. The general conclusions are: that there is a great reduction of mortality in all cases, but especially in those brought under treatment during the first three days of illness, and an even more marked reduction in laryngeal cases; also that the course of the disease is undoubtedly shortened; that the injection of the serum produces marked general improvement; that the spread of the membrane is almost always stopped within twenty-four hours and that the membrane disappears markedly earlier; that in cases not already laryngeal, only very rarely does the larynx become infected; that in laryngeal cases operation is much less often required, and that when necessary, intubation can often be performed where tracheotomy would before have been necessary. In a large number of cases, an immediate or gradual decrease of temperature is brought about, and many observers also consider that the pulse is generally improved.

Considering the evil results that are said to follow the use of the serum, cardiac failure is most certainly not produced in any way by the action of the serum, and there does not seem ground for believing that it is any more frequent than formerly.

Paralysis also is most certainly not caused in any way by the serum. It is perhaps slightly more frequent than formerly, but this is not to be wondered at, since with a larger proportion of recoveries in severe cases, one would expect a larger proportion of cases of paralysis.

The antitoxin stops the further action of the diphtheria toxine, it does not and cannot be expected to have any regenerative influence on cells already partly or wholly destroyed.

Nephritis is certainly not caused by the serum. With regard to albuminuria there is some difference of opinion. Some observers have found an increase of cases with albuminuria under serum treatment, while as many others deny any increase. The increase is probably partly due to greater care in the examination, but it is thought by some that the injection of the serum may induce temporary excretion of albumen by the kidney.

In a certain variable number of cases, however, various rashes, joint pains and some fever have followed the injection of the serum. The rash may be either a local urticaria or erythema round the point of injection, a universal urticaria spreading from the point of injection, a rash very like that of scarlet fever, or a polymorphous, often morbiliform rash about the head. These may appear from the first day up to the twenty-eighth day after injection, but most often from the tenth to the twelfth day. The percentage of cases in which they appear is very variably given, viz., from 4 per cent. to 50 per cent. They always end favourably, disappearing generally before the third day. The frequency varies with the serum from different horses and is most certainly less, now that, owing to its higher antitoxic power, smaller quantities of fluid can be injected. The most probable explanation is that the rashes are due to the injections of the serum, as a foreign serum, and not in any way to the antitoxin contained in it.

Joint pains and joint swellings have also appeared in from 1 to 6 per cent. cases treated, coming on from the 15–30th day after injection and disappearing without any evil consequences in a few days. There have also been occasionally noted feverishness, rise of temperature, and general disturbance leading to restlessness, and later to loss of strength and apathy, but these cases also soon clear up.

Eighteen cases have been collected in which death was thought by some observers to be due to the serum, but this has not been proved without a doubt for a single case. Most of the deaths were due to outside causes, and in the few cases of sudden collapse, it has been suggested that death was due to entrance of air into a vein with the injection.

Dose.—With regard to the dose of the serum, the amount given has been far too small, though gradually larger and larger doses are becoming the rule, and as this rule becomes general, there is no doubt but what the results obtained will still further improve. The dose must, of course, be calculated in units. With the small

bulk serums now prepared, it is easy to give a large dose. In most of the London fever hospitals, 6,000 to 8,000 units are being given on admission, and afterwards as much as the necessities of each case require. The injections must of course be made aseptically, and are best introduced into the subcutaneous tissues of the outer side of the flanks or of the infraclavicular or hypochondriac regions. Abroad, in bad cases, the serum is given intravenously, as it is found that in subcutaneous injections a certain amount of the antitoxin is lost to the blood system. Antitoxin cannot be given by the stomach, as a 0·2 per cent. solution of HCl destroys its properties entirely. It is also completely destroyed in tryptic digestion.

From the foregoing it is perfectly evident that in the antitoxic serum for the treatment of diphtheria, founded in a strictly scientific manner on absolutely conclusive experiments on animals, we have a remedy which, when given early, has a most remarkable power in curing the disease, and has also undoubtedly given results far, far in advance of any other known method of treatment.

(To be continued).

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Circulatory System.

MARY	9.	Ulcerative endocarditis.
	21.	Aortic aneurysm and regurgitation.
	22.	Chlorosis.
PHILIP	17.	Rheumatic endocarditis. Mitral regurgitation.
	19.	Ulcerative endocarditis.
	28.	Aortic stenosis and incompetence. Hypertrophied ventricle.
STEPHEN	7.	Aortic aneurysm.
	28.	Dilated heart.

Nervous System.

MARY	3.	Paraplegia.
	8.	Neurosis.
	25.	Cerebellar tumour. ? Tubercular.
	23.	Cerebral tumour.
	30.	Myelitis. Mid-dorsal.
	48.	Chronic myelitis.
PHILIP	10.	Paralysis agitans.
	30.	Chorea.
	32.	Cephalagia with double optic neuritis and otorrhœa.
STEPHEN	2.	Left facial paralysis, &c. Syphilis.
	25.	Multiple alcoholic neuritis.
	35.	Right sciatica.
	38.	Infantile paralysis.

Alimentary System and Abdomen.

MARY	12.	Cirrhosis of liver. Alcoholic neuritis.
	13.	Carcinoma pharyngis.
	Cot 54.	Fæcal fistula.
	17.	Cirrhosis of liver. Ascites.
	18.	Dyspepsia—formerly hæmatemesis.
	27.	Intestinal obstruction. Sigmoid growth. Right lumbar colotomy.
	29.	Colitis.
	35.	Carcinoma pylori.
PHILIP	3.	Dilated stomach and peristalsis.
	5.	Enterica.
	7.	Hydatid of liver.
	11.	Ulcerative colitis.
	14.	Pyloric growth. Operation.
	33.	Appendicitis, sixth attack.
	38.	Nutmeg liver.
STEPHEN	22.	Enterica.
	31.	Enterica.
	33.	Appendicitis.
	34.	Enterica.
	40.	Enterica.

Genito-Urinary System.

MARY	11.	Acute tubal nephritis.
	23.	Acute tubal nephritis.
	39.	Diabetes mellitus.
PHILIP	8.	Diabetes mellitus.
	20.	Diabetes mellitus.
	23.	Acute nephritis.
	27.	Chronic tubal nephritis.
STEPHEN	37.	Diabetes.

Respiratory System.

MARY	7.	Bronchitis.
	24.	Phthisis.
	31.	Pleurodynia.
	44.	Phthisis and bronchitis.
	Cot 51.	Bronchitis.
PHILIP	1.	Phthisis.
	2.	Broncho-pneumonia.
	6.	Phthisis.
	9.	Phthisis.
	12.	Pleuritic effusion (empyema).
	13.	Laryngeal stenosis (tracheotomy).
	18.	Tracheal stenosis (tracheotomy).
	25.	Bronchitis. Stomatitis after measles.
	26.	Empyema (left chest).
	29.	Hæmoptysis. ? Caseous broncho-pneumonia. ? General tuberculosis.
	34.	Bronchitis.
	35.	Left pleuritic effusion.
	37.	Syphilitic stenosis of larynx. Tracheotomy.
STEPHEN	3.	Right broncho-pneumonia.
	12.	Emphysema. Capillary bronchitis.
	23.	Pneumonia.

STEPHEN 24. Bronchitis.
36. Bronchitis and emphysema.

Miscellaneous

MARY 4. Acute rheumatism.
14. Multiple arthritis.
38. Acute rheumatism.
PHILIP 21. Rheumatism.
31. Multiple synovitis (shoulders and neck).
39. Ague.
STEPHEN 5. Acute rheumatism.
8. Multiple hydatids.
9. Erythema and polyarthritis.
18. Acute rheumatism.
32. Mediastinal growth.
39. Lupus.

In the Surgical Wards.

CASES UNDER MR. HOWSE.

NAAMAN 8. Suppurating hæmatoma of side.
10. Acquired inguinal hernia and cyst of cord.
12. ? Vesical calculus.
13. Double talipes varus.
15. Hæmatocele. Castration.
17. Recto-urethral fistula, post-gonorrhœal.
18. Epithelioma of floor of mouth.
19. Epithelioma penis. Amputation.
CHARITY 6. Burns.
10. Carcinoma mammæ.
13. Strangulated femoral hernia.
17. Fractured tibia and fibula.
18. Chronic tuberculous abscess in neck.
ASTLEY COOPER 8. Fractured ribs. Hæmoptysis. Death.
11. Fractured patella.
16. Fractured tibia.

CASES UNDER MR. DAVIES-COLLEY.

LUKE 1. ? Tuberculous knee. ? Gonorrhœal.
4. Strangulated inguinal hernia.
12. Tuberculous knee, æt. 53. Amputation through thigh.
13. Tuberculous glands in neck.
LYDIA 1. Tuberculous knee.
8. Tuberculous osteitis of fibula. Fibrous ankylosis of ankle.
17. Webbed fingers. Didot's operation.
20. ? Carcinoma of descending colon.

CASES UNDER MR. LUCAS.

JOB 2. Epitheliomatous glands in neck. Secondary to tongue.
LYDIA 11. Umbilical hernia. Radical cure.
15. ? Gall-stones in cystic duct.
Cot C. Hare-lip.

CHARITY 1. Recurrent carcinoma mammæ.
2. Moveable kidney.
22. Mastoid abscess.

CASES UNDER MR. GOLDING-BIRD.

LAZARUS 4. Bronchocele.
5. ? Sigmoid growth.
9. Ankylosed elbow. Traumatic.
11. Ischio-rectal abscess.
15. Stricture.
16. Hammer toe.
18. ? Sarcoma of tibia. ? Chronic abscess, periosteal.
20. Subungual exostosis of toe.
MARTHA 1. Tuberculous ankle.
4. Strangulated hernia (femoral).
6. Cyst of ovary in hernial sac, with symptoms of strangulation.
7. Strangulated femoral hernia.
17. Double mastoid abscess.
19. Tuberculous glands in neck.
21. Fractured patella—wired.
Cot A. Tuberculous knee.
Cot B. Tumour in cheek. ? Suppurating nævus. ? Sarcoma.
ASTLEY COOPER 7. Fractured base.
10. Comminuted fracture of humerus.
13. Compound fracture of tibia.
23. Ruptured kidney.
CORNELIUS 8. Acute necrosis of tibia. Septicæmia. Death.

CASES UNDER MR. JACOBSON.

NAAMAN 1. Stricture.
21. Epithelioma linguæ.
DORCAS 1. Synovitis of ankle. Old excision of knee.
2. Inframaxillary demoid cyst.
3. Carcinoma mammæ. Amputation.

CASES UNDER MR. SYMONDS.

MARTHA 13. Cleft palate.
LUKE 16. Stenosis of larynx. Tracheotomy.
17. Pyloric obstruction. Dilated stomach. Gastric carcinoma.

CASES UNDER MR. LANE.

JOB 13. Fibro-sarcoma of fascia of back.
14. Separated upper epiphysis of femur. Operation.

CASES UNDER MR. DUNN.

MARTHA 10. Moveable kidney.
LAZARUS 3. Varicose veins and varicocele.

"Clinical."

JOHN 4. Growth of ascending colon. Double resection of gut. Colotomy.
6. Mitral regurgitation and stenosis. Aortic regurgitation and stenosis.

JOHN 7, 10. Appendicitis undergoing resolution.
8. ? Granular kidney. ? Cirrhosis of liver.
11. Amœbic dysentery.
12. Acute bronchitis and emphysema.
14. Empyema opening into lung. ? Abdominal in origin.

MIRIAM 17. Hemiplegia from cerebral hæmorrhage. Clearing up.
18, 26, 30. Appendicitis. Operation.
19. ? Typhoid.
20. Leuchæmia.
21. Typhoid.
22. Pleuritic effusion.
23. ? Carcinoma pylori.
24. Abdominal. ? Ovaritis.
25, 27. Rheumatism. Mitral disease.
29. Pneumonia. Abortion.
31. Fibro-sarcoma in popliteal space. Seven years' history. Secondary hepatic deposit.

Cots 33, 35, 36. Broncho-pneumonia.

The Work of the Wards.

THE following table of the work done in the male general surgical wards during the year 1897, may be of some interest:—

WARD.	No. of Beds.	No. of Cases.	No. of Patients per Bed per annum.	Average stay of each Patient in days.
JOB ...	25	375	15	24·3
LUKE ...	21	277	13·2	27·7
LAZARUS ...	22	282	12·8	28·5
NAAMAN ...	22	211	9·6	38

A glance at the statistics above will show that 100 more cases are admitted into Job during the year than into any other ward. Of course, there are three more beds in Job, but making all necessary allowance for greater space, each bed in Job accommodates 13·5 per cent. more cases than does each bed in its nearest competitor, Luke.

We may note that this calculation gives a much truer estimate of the work done in a ward than the daily average of patients, which is taken as the standpoint in the monthly list of dressings, for on that basis a chronic case requiring no dressing, serves to keep up the average every bit as much as a case recently operated on. Next issue, we hope to publish the figures referring to the female surgical wards, but the necessary work of sorting accidents from general cases will take some time.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

"Hospital News Column."

DEAR SIR,—It is with regret that I notice "Hospital News" is omitted in the last number of the GAZETTE.

When I saw the proposal to omit this interesting list some few weeks back, I never for one moment thought such a proposal would be carried out.

It is much to be regretted that "Hospital News" should disappear from your columns, for one who has left the Hospital enjoys reading over the list of cases in his "old beds," and one constantly saw on the list cases which we in the country hardly, if ever, see, and this brought quickly back to one's mind how "rusty" one had got on these particular subjects; thus, "Hospital News" was also a great stimulus to do a little reading; again, at Guy's, I found it very useful indeed, especially after one had done Medical Ward, for one could easily at a glance pick out any particular case to read up or examine in the wards.

I think that one of the reasons given for discontinuing the list was that it took up so much room in your valuable paper; but, Sir, if I may make a suggestion to obviate this, I would propose that all such matter as Chapel News, Missionary Sermons, etc., should most certainly be sacrificed before such a useful and old-established column as "Hospital News."

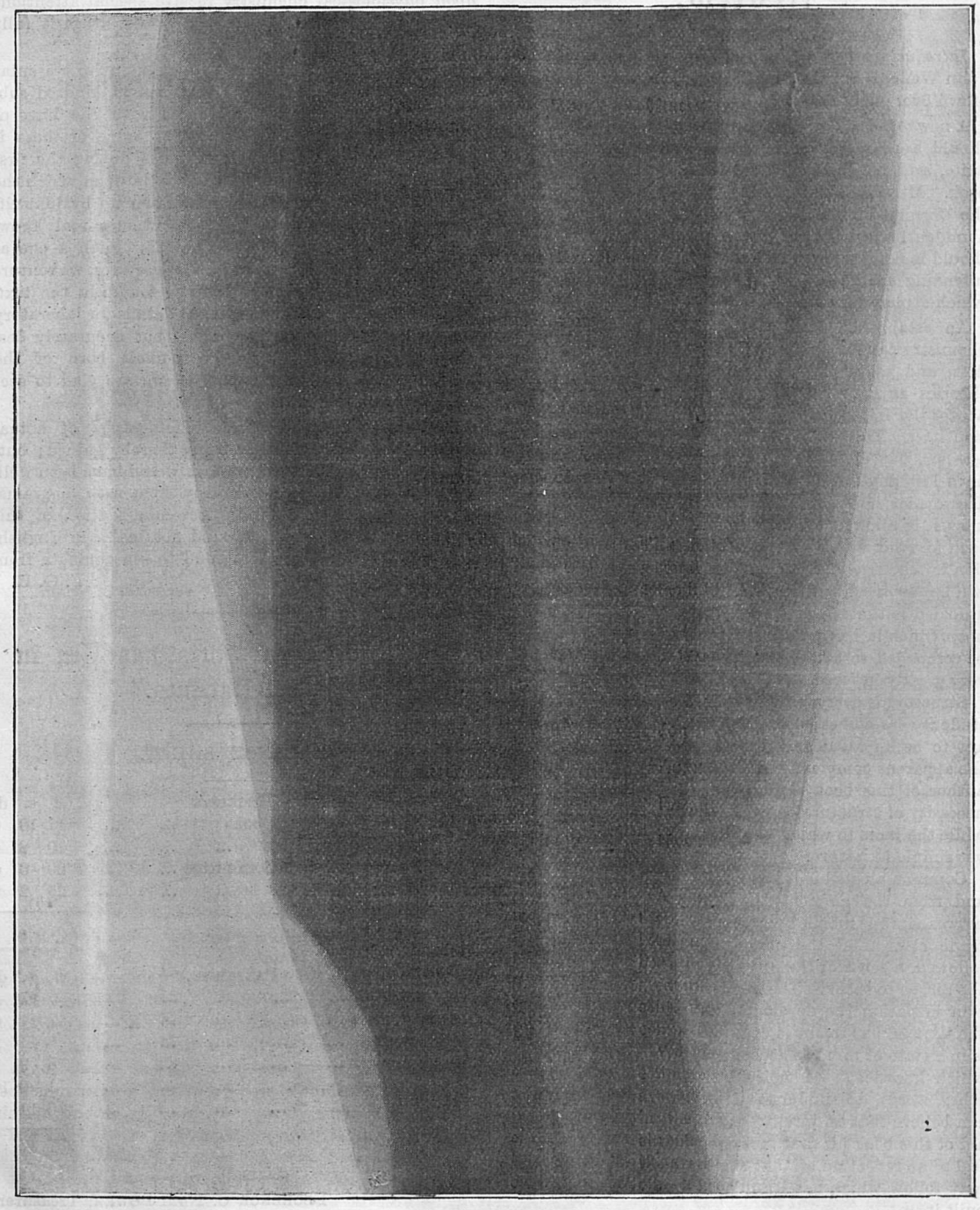
I suggest this without feeling against any religious faction at Guy's, simply because I think such matter as mentioned above, is quite unnecessary and foreign to a paper of the GAZETTE'S standing.—Yours, etc.,

"COUNTRY H.S."

"Practical Pathology."

DEAR SIR,—In an article by S. E. Denyer, B.A., under the above heading, published in the GAZETTE of July 3rd, 1897, p. 325, is given the receipt for Hamilton's Freezing Fluid. On having some prepared according to the directions given, the result was a *watery* mixture, in which cloud-like growths very soon appeared. I made inquiries and find that instead of "45·6 grams of Gum Acacia in 2400 cc. of cold water," as printed, there should be read, "456 grams of Gum Acacia," etc. This mistake in the figures would account for the appearances above alluded to, and is, I believe, to be found in Hamilton's own book, but attention is there called to it amongst the "Errata." A friend of mine informs me that even when this Freezing Fluid is prepared according to the correct receipt, the addition of Carbolic Acid is necessary to prevent the growth of moulds on the surface.—Believe me, yours faithfully,

22, Grosvenor Street, W. A. E. BAKER.
Jan. 19, 1898.



H. A. H.—Fractured tibia and fibula, February, 1896. Skiagraph taken, December, 1897.

Review.

Introduction to the Study of Organic Chemistry. By John Wade, B.Sc. London, Swan Sonnenschein, 460 pp. crown 8vo, published at 7s. 6d.

A new text-book on such a subject as Organic Chemistry should appear only because the author has a book to write, and not because he has been asked to write a book. Mr. Wade's work undoubtedly took origin from the former circumstance. It has originality which abundantly justifies its appearance, and merits which should make it welcome alike to the student and to the intending examinee—if a distinction may be pardoned which sometimes obtains.

An established and developed science like organic chemistry can be presented in one of two ways—the first, and more classical method, presents facts and theories *ex cathedrâ*—the student being expected to accept the latter first of all and to learn their justification later. The second method is more difficult for the teacher, but after perusing the volume before us, we have lost any lingering doubts as to its being the best. The reader here proceeds from the known to the unknown, is allowed to feel the *vis a tergo* which compels each forward step, and realizes as he goes the qualification for each generalization made. The more orthodox will be surprised, perhaps, to find that the science can be unfolded to the reader on lines closely parallel to those upon which it has historically developed; and they will be compelled to admit that the teachings gain thereby very greatly in force.

Structure is everything in organic chemistry, and the student who comes to it fresh from inorganic work, is apt to be appalled and discouraged from the outset by the apparent complexity of structural formulæ. But the author of this book skilfully makes the reader feel the necessity of structural considerations from the very first, while the facts to which they have to be applied are as yet simple in nature.

Common alcohol is taken as the text of the argument, and from the moment that the fact of the contrast between its one mobile hydrogen atom and the other five is made clear, and the conception of the radicle has followed, a sense of the *necessity* of structural idea is in the air, so to speak. The reader is led to expect of his own initiation the developments which follow, and by the time he has read the cyanite synthesis (chap. xi.), he is in a state of mind to accept gladly the evidence upon which knowledge of molecular structure is based, in other words, to understand organic chemistry. We can believe that an intelligent student, making with the aid of this book his first incursion into the science, must feel some reflection of that excited expectation of what may follow which has stimulated those whose work has built it up.

In selecting the facts to be dealt with, the author's choice has been to some extent guided by the needs of the medical student, and sections which bear immediately upon physiological chemistry receive special attention, and the constitution of many important drugs is fully explained.

A feature of the book is seen in an extensive presentation of charts, in which the relations of kindred substances are graphically represented with the lines of reaction which connect them. The value of these is great, though we think their best use during the first reading of the book will be as models upon which the student may base similar charts drawn up by himself. The value of those given increases when a real knowledge of the subject has been gained. Such a one as that dealing with the sugars (p. 194) requires, we venture to think, more elucidation than is found in the text. One section is devoted to practical details for laboratory work, the methods being concisely but accurately described; mere "test-taking," a pursuit born of the artificial examination syllabus, is, we are glad to see, relegated to a subordinate position.

The illustrations are from photographs of actual apparatus, a sense of reality being thereby gained; but, as some of them lack clearness, it would have been well, not to replace, but to accompany them with diagrams. We conclude with a strong recommendation of this work as quite the best of its kind obtainable in English. It is one which we may be proud to see emanate from the Guy's school.

F. G. H.

The Children's Christmas Tea in "Out-Patients."

BALANCE SHEET.

RECEIPTS	£	s.	d.
From Three Collecting Books	11	10	6
„ The Staff	10	8	0
„ Two Members of Committee	20	6	0
„ Other Sources	25	2	7
	£67	7	1

PAYMENTS.	£	s.	d.
Tea	26	17	4
Toys, &c.	17	14	0
Amusements	8	14	2
Decorations	6	9	1
Sundries, postage, &c.	1	0	10
Balance in hand	6	11	8
	£67	7	1

(Signed)

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THE STAFF OF GUY'S HOSPITAL. No. 2.

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Passim.

THE Disguysed Minstrels' entertainment at St. George's Hall went splendidly from start to finish, and although the performance did not end before a quarter to eleven, everyone was complaining that it was all too short, so that it can be understood that there was not a slow minute during the whole evening. Special mention must be made of Fitz-Hugh's, Atkins', and Kelsey's songs in the first part, and of course Scott-Turner and Cazenove's "scene," entitled "The Twins," which concluded with the laughable Twin Duet, proved to be the hit of the evening. The sketch went better than it had ever done before, the alterations made since it was first put on, having done it a world of good. The orchestra was well balanced, and played with excellent effect.

IN order that the Brixton and Anerley performances may be the successes that the corresponding shows were last year, much hard work will need to be done. There is none too much time either, so we earnestly entreat all those interested, especially those living in the districts, to put their shoulders to the wheel. Tunbridge Wells, too—a new departure on the Disguysed programme—is in need of the hearty support of all our friends in the district. If it is not forthcoming, not only would a most deserving cause suffer pecuniarily, but the troupe and orchestra would receive a damper that would be bound to affect any future performances.

THE Rugby team has played three matches since last issue, two of which have resulted in wins, and the third in a somewhat severe defeat. Although the Cup-tie season is close on us, the team is by no means definitely settled, the usual crop of accidents having sprung up to prevent this desideratum. The eight forward places are practically determined on, though, if Goddard is in the end able to play, it will necessitate the leaving out of one of the present set; who that one will be, it is hard to say. At half, F. C. Wetherell of course will take one place, and will probably be partnered by his brother, if the latter's knee is reliable. The composition and arrangement of the three-quarter line is at present the most doubtful, though all-important question. Rae is still *hors-de-combat*. At the time of writing, Sime appears to be the only one absolutely certain of playing. Pye-Smith to be any good in the centre must tackle low and learn to time his passes better; the same applies to Walker, if he is to be one of the ultimate choices. Pierce is fast when once he gets started, but is somewhat uncertain. The other candidates are Jackson, Morgan, and possibly Hilton. We want to see some definite arrangement arrived at very soon, and the men training *together* down at the ground. This is obviously the only way by which some combination can be instilled into our, at present, very straggly third line.

THE Soccer team seems also to be passing through a transition stage, and rarely has the same team taken the field for two consecutive matches. It is quite time, however, that things settled down a bit. London and Barts' both seem to be going strongly in this department, and Guy's will have to use every effort if the Cup is to be retained. The first cup tie against Charing Cross is down to be played next Thursday at Honor Oak, and ought to result in an easy victory for our men. We look to all Guy's men to see that there is a goodly crowd present, to cheer on their team to victory.

IN another column is published the balance sheet relating to the Children's Out-Patient Tea, and a most satisfactory one it is. At the meeting of the committee last Monday, it was decided to hand over the balance—some six pounds—to Sister Sarah to be used in the district round about the hospital that is worked by the "Institution" nurses. At the same meeting it was unanimously determined that with the authorities' permission, the experiment so successfully tried in '97 should be repeated next Christmas-day, and with T. W. Landon again as secretary there can be no doubt that an even more successful function will result.

NOT only all his personal friends, but in fact all who know anything of the working of our great hospital, will have heard with deep regret of the sudden and dangerous illness of our architect, Mr. Wood. At a time when his services are most important for the development of all the new schemes and proposals at present under consideration, he has been taken away and laid upon a bed of sickness, which he cannot under the most favourable circumstance leave for some weeks to come. Thanks, however, to the operative skill of one of the most eminent surgeons of the day, he is progressing quite as well as can be expected; and when spring comes round again we hope to be able to

welcome him back again to his sphere of work at Guy's.

WE would call the attention of every man with any pretensions to keenness on his work, to the list of the hospital prize examinations for the year, which, with dates and times, will be found printed in this number. Especially would we direct his eye to the regulation at the bottom, requiring each candidate to give fourteen days' clear notice to the Dean of his intention to compete. It does a good deal to simplify the work of the office if everyone obeys the injunction.

FOLLOWING Guy's example, the London Hospital brought out the other day a second hospital paper, yclept the *Sphygmograph*, the first number of which is before us. If the imitation had been closer, a better result could have been chronicled. As it stands at present, the *Sphygmograph* contains matter which clearly would be more in place in the *Hospital Gazette*. We are of opinion that a second paper run on similar lines to the existing one, will have but a short course to run.

A WORTHY addition to the list of hospital journals was made this year when the first number of *The Stethoscope*, the journal of the Bristol Medical Students, made its appearance. We offer its staff our congratulations on their first attempt, and we shall watch with interest our youngest relation's future development.

WE have before us the new Dental Calendar for 1898, and most useful it should prove to be. Not content with last year's production, Mr. Croucher has this time added to it at least one important and convenient item, viz., a calendar for the year on the front page. This useful card can now be obtained in the Conservation room and at the Medical School office. We are promised the Medical Students' Calendar during the coming week.

WE publish to-day a letter from a country correspondent protesting against the omission of "Hospital News" from our columns in the last issue. We may state, however, that the omission was intended to be only temporary, as we endeavoured last time to bring out a number containing no "shop"; hence "Hospital News" went out with the rest. We have now received several opinions as to the advisability of continuing the insertion of the column referred to, and a large majority are in favour of keeping it in. We shall endeavour, however, to insert a list of surgical cases of special interest only, and in future hope to publish the "take-in" lists of each surgeon for the week as well.

ANOTHER instalment of the promised portraits of the Staff of the Hospital appears with this issue. In order to keep within the weight limit for halfpenny postage, only one-third of the photos that remain to be published, are here given. A further batch will come out with our next number, and the remainder as soon as may be.

WITHIN a very short time, the dim recesses of the out-patient department will be dim no longer, for the plans for the lighting of that dull, though busy quarter of the hospital by means of electricity, are now complete, and the work will almost immediately be taken in hand. This, together with the general clean up that the place is at present undergoing, will transform it into a veritable palace of delight, or something approaching it, and do much to popularise the students' work in the many branches of that department.

THE skiagraph printed on another page, though not perhaps a perfect specimen of its kind, has many points of interest attached to it. It shows the condition of the bones of the right leg of a certain student of this hospital, who two years ago had the misfortune to sustain, on the football field, a simple fracture of both bones. Moreover, notwithstanding the permanent deformity of the bones, the whole is what is termed a "good result," there being an amount of shortening under half-an-inch, and the owner experiencing practically no inconvenience thereby. At our athletic sports, too, last summer, the leg carried its owner to victory in the Hurdle Race.

THE first meeting of the Physical Society after the Christmas recess, is to be held to-night in the hospital library. Clinical cases will be shown.

The Services.

(From our Special Correspondent).

ARMY AND NAVY.

An Examination of Candidates for entry into the Medical Department of the Royal Navy will be held in May next. Further particulars will be announced later on. The form to be filled up by candidates will be supplied on application to J. N. Dick, Medical Director General, Admiralty, W.C.

Guy's Hospital, 1898.

PRIZE EXAMINATIONS.

Competition for the undermentioned Prizes will take place on the following dates:—

THE ARTHUR DURHAM PRIZES FOR DISSECTION.

Wed., Mar. 9 10 a.m.

JUNIOR PRIZES FOR GENERAL PROFICIENCY.

Mon., Mar. 21 10–1 Elementary Anatomy.
" " 21 10–1 Anatomy.
" " 21 2–5 Physiology.
" July 25 10–1 Histology.

MICHAEL HARRIS PRIZE IN ANATOMY.

Mon., Mar. 21 10–1

The date of the Practical Examination will be announced later.

SANDS COX SCHOLARSHIP.

Mon., Mar. 21 2–5

The date of the Practical Examination will be announced later.

SENIOR PRIZES FOR GENERAL PROFICIENCY.

Mon., Mar. 21 10–1 Clinical Medicine.
" " 21 2–5 Medicine.
Tues., " 22 10–1 Clinical Surgery.
" " 22 2–5 Surgery.
Wed., " 23 10–1 Medical Jurisprudence.
" " 23 2–5 Public Health.
Mon., July 25 10–1 Pathology,
" " 25 2–5 Midwifery & Diseases of Women.
Tues., " 26 10–1 Pharmacology and Therapeutics.
" " 26 2–5 Mental Diseases.

BREDIN PRIZE FOR CLINICAL STUDY.

Mon., May 2 Last day for presenting Reports to the Dean in the Medical School Office.

BEANEY PRIZE IN PATHOLOGY.

Mon., July 25 10–1

The date of the Practical Examination will be announced later.

TREASURER'S MEDALS.

Mon., June 6 10–1 Surgery.
" " 6 2–5 Medicine.
Tues., " 7 10–1 Commentary on a Case in Medicine.
" " 7 2–5 Commentary on a Case in Surgery
Wed., " 8 10–1 Clinical Examination in Medicine
Thur., " 9 10–1 Clinical Examination in Surgery.

Operations to be announced later.

GOLDING-BIRD GOLD MEDAL AND SCHOLARSHIP.

Tues., Mar. 22 10–1 Paper.
" " 22 2–5 Practical.
Wed., " 23 10–1 Paper.
" " 23 2–5 Practical.

DENTAL PRIZES.

FIRST YEAR'S STUDENTS.

Tues., Mar. 15 2–5 Anatomy.
Wed., " 16 10–12 Physiology.
" " 16 2–5 Dental Anatomy.
Fri., Mar. 18 2–5 Dental Surgery.
Mon., June 6 9 a.m. Conservation Room Examination.
Thur., " 9 2 p.m. Clinical Examination.
Sat. " 11 9 a.m. Laboratory Examination.

(1899 Prizes.)

Tues., Dec. 13 2–4 Metallurgy.

SECOND YEAR'S STUDENTS.

Tues., Mar. 15 2–5 Anatomy.
Wed. " 16 10–12 Physiology.
" " 16 2–5 Dental Anatomy.
Thurs., " 17 2–4 Surgery.
Fri. " 18 2–5 Dental Surgery.
Mon., June 6 9 a.m. Conservation Room Examination.
2 p.m. Clinical Examination.
Sat., " 11 9 a.m. Laboratory Examination.
Fri., July 22 2–5 Dental Microscopy.

(1899 Prizes.)

Tues., July 19 2–5 Dental Mechanics (Paper).
Thur., " 21 2–5 Operative Dental Surgery (Paper).

No candidate will be allowed to compete for any prize unless he has given notice in writing to the Dean at least *fourteen clear days* before the commencement of the examination.

The examinations for the Open Scholarships in Arts and Science will be held on September 27th, 28th and 29th.

Pass List.

University of London.

B.S. EXAMINATION, 1897.

EXAMINATION FOR HONOURS.

FIRST CLASS.

C. H. Fagge, obtained the Gold Medal and moiety of Scholarship.

Second Conjoint Examination, January, 1898.

R. D. Attwood, T. R. Beale Browne, E. J. F. Hardenberg, T. T. Kelly, W. P. Ker, P. S. Mandy, B. Rodil, E. Shelton-Jones, R. Tilbury, J. L. Whatley, M. D. Wood.

First Conjoint Examination, January, 1898.

CHEMISTRY.—F. M. M. Ommanney, J. D. Pearson, A. H. Turner.

ELEMENTARY BIOLOGY.—C. H. Bubb, P. P. Cole, R. Moyle, J. D. Pearson, A. H. Turner, F. C. Whitmore.

PRACTICAL PHARMACY.—H. P. W. Barrow, V. T. C. Bent, V. J. Crawford, A. Kinsey-Morgan, C. Shepherd, C. B. Thomson.

(Under the four years' regulations.)

MATERIA MEDICA AND PHARMACY.—M. A. Alabone.

Examinations.

OUR student life is passed in an atmosphere of examinations. We have no sooner brought one ordeal to a successful issue, than we have another looming in the distance. We are always "in for" something, and this continual chain of ordeals is increased in complexity by the diversity of courses in the English system. We have the Conjoint course, we have the London University course, we have the Fellowship course, and we have the Oxford and Cambridge courses. Consequently we are never free from some delightful little excitement of some sort. No wonder, then, if we tire of the word examination. Yet we are always ready to talk about it, we cannot help ourselves. The subject is so forced upon us from without, that we are unable to avoid revolving inwardly upon it, and then we are naturally compelled to communicate any ideas that may have evolved from our inward cogitations. And so, following the current of the stream, we come to talk once more about examinations.

There is perhaps no aspect of the subject we are more fond of discussing than that of the imperfections of the examination system as a test of a man's knowledge. When we have had the bad luck to fail to satisfy our examiners after many months of hard labour, and particularly when the test makes a distinction between ourselves and our friends, we try to console ourselves with thoughts on the imperfections of the system in its inability to discern accurately a man's merit. At its best this is poor comfort, particularly for those who conscientiously feel themselves wronged, and there is no doubt that such cases do occur, and pretty frequently.

If we consider the conditions of the case, we can hardly expect it otherwise. How can one judge a man's capacity accurately on a three hours' paper, and a ten minutes' conversation under exceptionally trying circumstances? Apart from the shortness of the time, a man is in a physiologically abnormal condition, and one cannot therefore look for normal results.

Then we have to consider the examiners. They are human; they are men with prejudices, idiosyncracies and moods; they are influenced by many external circumstances. They must be; consequently they cannot, any more than any other man can, form the same judgment at different times under different circumstances; nor will any two men make the same judgment under the same conditions. Everything is done to eliminate these sources of error as far as possible. We have two examiners bracketed together to correct each other's "personal equation." But these sources of error cannot be eliminated entirely from the system; they are dependent upon its human factor. Eliminate the examiners and you eliminate those sources of error, but what is to be placed in their stead? If we could invent an automatic machine to record accurately a man's ability, we should have a perfect system, but man is not a machine, and cannot take the place of a machine, and so long as we have to accept him as a substitute in place of our ideal automatic recorder, we must put up with the necessary human imperfections as part and parcel of our system.

But there are other more general alleged imperfections in the system. The most important of these appear to be:—

1. That examinations lead to cramming and not to true knowledge.

2. That while they may judge more or less accurately the capacity of a man in regard to his actual knowledge of a subject, they very often fail to bring out a man's ability, talent, or genius, such as is evidenced in practical life.

3. That they are very trying ordeals and consume a large amount of a man's nervous energy, which might be more profitably used in practical life.

Though there is much to be said in favour of the first objection, it would appear to be often exaggerated. No doubt one must learn many facts for examination purposes, which are more or less useless in practical life, and which are as quickly forgotten when the ordeal is past. But it may be urged that this necessity to cram the whole subject, so that at least at some one point of time, be it ever so short, one has a complete view of the subject in the mind, gives a grasp of the subject which is not easily lost, though the individual facts may be, and which might never be acquired, were it not for the impetus of the examination. In so far, however, as this question of cramming relates to the second objection, it appears to be a more serious error. Examinations undoubtedly tend to be rather judgments on the amount a man has crammed of a subject, than on his innate ability to deal with the subject, and this impotence of the examination system to judge a man's ability rather than his knowledge of facts, is perhaps the most serious defect in the system. We have many classical examples of this. Sir Isaac Newton's marvellous mathematical genius was outdone at the Cambridge mathematical tripos by a man, whose sole contribution to the subject afterwards was a text book on arithmetic.

Now, this defect seems to be due to a distinction between a mind capable of storing facts and of reproducing them as stored, and a mind capable of absorbing facts and reconstructing them, re-arranging them into new ideas. This power of reconstruction constitutes what we designate talent—genius. We know that Newton was a genius; no doubt his rival was a man with a mind capable of a large storage. It is undoubtedly true that those who possess this wonderful capacity for storing facts are not *necessarily* capable men in other respects, so that examinations seem to require a special type of mind, which is not the most useful in practical life. Pluto draws an analogy between the "soul" and a wax tablet, which is capable of receiving impressions, and which retains them for a long or short time, according to the quality of the wax. But this analogy only represents one function of the mind, it does not take account of its more wonderful function—its power of reconstruction, of origination.

Now, a mind possesses these two functions, but it may possess either one in varying degree of excellence, and one frequently finds one power developed in a far higher degree than the other. It must be confessed that the reconstructive power is the characteristic of a highly developed mind, while the power of retentiveness is an important element, but of little practical service without the second function.

Yet examinations judge a man's mind solely by his mental capacity as a wax tablet. The reconstructive power which constitutes his genius has a minimum scope. It is interesting to point out here, that the relative development of these two powers form an important sex distinction in minds. A woman's mind is characterised by the quality of the wax tablet, but the power of origination is more or less lacking. On the other hand, the man's mind shows a higher power of origination often combined with a lower degree of retentiveness. And this distinction appears to explain the ease with which women excel in examinations. They possess that very power upon which examinations set the seal of excellence.

If we are asked how we shall amend this deficiency, we are confronted with a serious difficulty. The whole problem resolves itself into this—one can measure a man's knowledge of facts, but how measure his genius? At present we know of no method of measurement, and we have, therefore, to accept the measure of his knowledge as that of his genius, but as they are absolutely different functions of the mind, this method of measurement is palpably incorrect.

With regard to the third objection, examinations are undoubtedly a mental strain, and an examination "break-down" may have serious consequences to the individual. It is to be regretted that so much nervous energy should be expended upon what is, after all, but a means and not an end in itself. It seems, however, impossible to avoid this waste of energy, so long as examinations are the necessary portals to qualifications, but the waste is increased to a wanton extent by the complexity of our system of medical examinations. A man may commence with the Conjoint course; he then discovers his abilities are not too mean to attain the London University degree, and if he be ambitious he cannot but aspire to the higher qualifications of the Colleges. There have been various rumours of endeavours to combine all these courses into one systematic whole, by which many of the preliminary examinations would be struck out—that, for instance, there would be one examination for Second Conjoint, Primary Fellowship and Intermediate London, the candidate qualifying for one or the other, according to his position in the one examination. It is to be hoped that some such amalgamation may eventually be arrived at.

In conclusion, it must be admitted that, criticise the examination system as we may, it appears to be almost impossible to find a substitute which will avoid the present imperfections, and at the same time will not introduce greater objections. It is easy to criticise, difficult to amend. The worst enemies of the examination system, after all their condemnations, are compelled to admit, when driven into a corner, that examinations are, at any rate, necessary evils. L. S.

My Three Years in the Arctic.

By R. KOETTLITZ, M.R.C.S., Medical Officer to the Jackson-Harmsworth Expedition.

(*Continued*).

By the 22nd of February we welcomed back the sun, and it is difficult for me to describe to you the joy and relief we felt when at last we had daylight again. Of course at first the days were very short, but day by day they rapidly lengthened, until by the middle of April we again had the midnight sun, and then we had "perpetual" daylight, until it set once more for the first time in September, when day and night would recur; then the nights became longer and longer, the days shorter and shorter, till at last the sun sank again for good in October, not to rise before towards the end of February, and so on.

The return of the sun was the signal to hurry the preparations for sledging; this was done, and by March 10th—the anniversary of the first sledging expedition's start in Franz Josef Land under the leadership of Julius Payer over twenty years ago—a preliminary journey of a week was made by Jackson, Armitage, and Blomkvest—the last named, who had been one of the ship's crew, having joined and consented to stay with us. They took with them two ponies, which pulled two heavily-laden sledges each, their loads consisting of provisions for both men and beasts, the tent, and furs, besides other equipment, as well as a large quantity of provisions and fodder which were to be cached at the farthest favourable point north to which they got, and so form the first of the series of depots it had been the original plan of the expedition to establish at different stages towards the pole. At the end of the week they returned looking extremely weather beaten, and very sore about the face, hands, and feet through repeated frostbites, for the weather they had encountered while away, had been particularly cold and severe.

After this preliminary journey, and the little experience got thereby, many modifications were made in the quantity of the food allowed per man, as well as in the equipment, and while these were being made—and they occupied some time—one evening, that of the 3rd of April, we were startled to hear from one of the men, who came up hurriedly from the ship, that the ice was moving, and that there was a danger of the ship getting adrift, and being injured by the moving ice, which had broken away from her seaward side, while she was still held fast by the land-floe on her landward side. We all rushed out, and sure enough, where a short while before we had seen nothing but white ice, ice, ice, as far as the eye could see, now we saw large spaces of dark

water, upon which enormous broken-up masses of ice were rapidly and irresistibly moving. The cause of all this commotion was the wind, which for four days now had been blowing a gale continuously from the eastward, and it was the long-continued pressure of this wind—which acts upon the hummocks of the ice very much like upon the sails of a ship—from the same direction which had at last made the ice give way and break up. This might have been a serious thing for the ship, which had no ballast yet in her, neither had her engines yet been attended to, nor was steam up. These matters were, therefore, at once hurriedly attended to, and the men worked hard at this necessary work. Of course, this early break up of the ice came to us as a great surprise, for no one expected it anything like so early; in fact, I should think it is a record for ice in "the eighty" to break up so soon. June was the very earliest for us to have expected it. Well, the engineers attended to the engines, the sailors to stones and ice being taken on board for ballast, etc., but the ship remained frozen firmly by her side into the land floe. The wind going down soon, the ice became quieter, and in a few days new ice had covered over the dark water, and everything became white again. Yet while it lasted it was a grand sight, these enormous masses of piled up ice irresistibly moving onwards, pounding and crashing against each other or against the flow upon which we stood, enormous blocks being pushed up and tumbled about as though little bits, whereas they weighed from twenty to fifty or more tons. No damage, however, occurred to the ship, and there she remained till the following July.

By the 19th of April the preparations for the main sledge journey for this season were complete, and five of us, Jackson, Armitage, Hayward, Blomkvest, and myself, with the four ponies and nine sledges, heavily laden with food for men and animals, equipments, etc., with two sections of the aluminium boat, and a light wooden Norwegian one as well—the latter to be left at the depôt made on the preliminary journey, so as to be available for emergencies—started upon our march.

I will here try to describe the daily doings upon the march, the mode in which we prepared and cooked our food, the furs we had, and how and when we used them, etc., about which there is a great misconception, I believe. Well, then, Jackson led the way, and drove a pony with two sledges. He did not, however, sit on his sledge, but walked at the side of his pony, and so drove it, for the poor pony had quite as much as it could pull without any such extra weight as the man who was driving it. Armitage followed, walking in the same way, and driving another pony pulling two more sledges. I then followed, driving another pony pulling three sledges, while Blomkvest brought up the rear with another pony and two sledges. Hayward made himself generally useful when any help was needed.

Our marching hours consisted, when starting after breakfast, of a spell of about four hours; then a halt was made, the ponies would receive a small quantity of oats, the cooker was got out, snow or ice was put into the melter, the spirit lamp lit, and the melter put over it, and the whole cooker closed up for this ice to melt. This cooker was made of aluminium, and was very light; it was round, measured 18 inches high, and was a foot in diameter, contained a melter and a saucepan, both of aluminium, a frying-pan of the same metal, a copper kettle, and lamp, both specially made, the lamp to make a large flame, and the kettle traversed with flues, so as to enable the heat to get at the water within more readily. We then each of us got one of our fur garments—the Militza—off the sledges, and put them on, after doing which we sat ourselves down, and pulled from our pockets a bread roll we had put there to thaw before starting after breakfast; by this time it was thawed. We then ate this, together with some frozen cheese we had put ready in a bag inside the saucepan of the cooker, and were thus occupied while the ice or snow was melting into water, after which, it was transferred to the kettle and boiled. As soon as this took place it was quickly poured into one of our "quart pots," in which was the tea-strainer filled with tea, which was put into it before starting in the morning, so the tea was soon made; after having each had about a pint of hot tea—and how delicious we always found it when out sledging! and how it bucked one up!—we got under weigh again and marched on for another three or four hours. A convenient place on the ice floe was then looked for as a camping place, that found, the ponies were first unharnessed, a rope was made fast round a hummock, and after hobbling them, and putting on their halters, they were tied to the rope round the hummock, hay and oats were at once given them in a box brought for the purpose, and a horse sheet fastened upon each. This done, the tents were unlashed from the sledges, set up, food bags brought close to door of tent, the food selected for dinner, which generally consisted of lentil soup with bovril mixed, bear meat (frozen minced meat ball), which is fried, sometimes with bacon, then a pint each of Cadbury's cocoa with bread roll, biscuit, butter and cheese. The meat has to be cut up by a small hatchet or tomahawk, so also the bacon, if the weather is at all cold—I mean from twenty to forty degrees below zero. After having despatched dinner, we light our pipes and make our arrangements for turning in, the things used for dinner are put away and the furs got out—by-the-bye, I omitted to say that after the tent is up and the ice melting preparatory to dinner, we always changed our foot gear, taking off our wet "Finsko," or reindeer fur boots which are made by the Lapps—and socks, and putting on dry socks—which we took off wet the night before, and dried by keeping them till now in our trouser pockets, where the heat of our bodies dried them, as well as our "pimmies," which are the long beautifully worked reindeer skin boots, lined with fox or cat-skin stockings, made by the Samoyeds. We also put on our Militzas in the same way as we did for luncheon. The furs we now put on were a pair of thick reindeer skin breeches, over the feet of the "pimmies"

a pair of thick reindeer fur overall boots called "tobocks," and then if the weather were very cold we put over the Militza another large reindeer fur garment called a "siveek" or "soveek"; we then laid ourselves down upon either the snow, or else upon a reindeer skin rug, taking as a pillow our kit bags, and went to sleep, first seeing that the rifle and ammunition was close to hand in case of emergency. We took with us a dog to watch, one for each tent, and thus were apprised in good time of any visitor in the shape of a bear.

(To be continued.)

Nursing News.

Sister Astley Cooper, Miss Morrah, has, to the extreme regret of her friends, been compelled by domestic circumstances to give notice to leave the Hospital, and Miss Leng, who has discharged the duties of a sister in Mary ward for the last nine months, has accepted a change of work to the surgical side. She will take Miss Morrah's place in Astley Cooper ward about the end of next month. Sister Bessie, Miss Hodges, the present senior night sister, will succeed Miss Leng in Mary ward.

Family reasons have compelled Miss Cawley to resign her appointment as sister of Martha ward, and the vacancy is temporarily filled by Miss Tuke, who lately completed her training as a lady-pupil.

Upon the recommendation of the Matron, and in accordance with the wishes expressed by the majority of the sisters, the House-Committee have sanctioned the following arrangements for the sisters' meals:—

Breakfast ...	...	7.15 to 8 a.m.
Luncheon ...	...	12.45 to 1.30 p.m.
Dinner ...	...	7.0 p.m.

Between breakfast and luncheon, sisters who so desire will be able to obtain milk, cocoa, biscuits, etc., in their own rooms. Luncheon: A cold joint will be placed upon the table at 12.45, and at 1 o'clock a hot meal will be served. The allowances for tea, sugar, bread and butter will continue unaltered. The above arrangement comes into force on Wednesday, the 2nd prox.

The Matron with the assent of the House-Committee, has decided that the senior probationers in each ward shall wear as a distinctive badge a narrow stripe of white on each sleeve, four inches above the wrist.

The new time tables for the various wards are now completed, and the Matron takes this opportunity of thanking the sisters for the time and trouble they have spent in elaborating a complete and practical scheme. The sisters were presented with copies of the new time tables, which have been framed and hung up in each ward for the information of those whom they concern. To enable the new scheme of off-duty times to be carried out, an additional staff of thirty nurses has been required, and on the last day of the present month that number of probationers will enter the wards.

Novelties.

MATERIA MEDICA, PHARMACY, ETC.

GLANDULEN.

Messrs. Thomas Christy & Co., 25, Lime Street, E.C., have sent us a sample of compressed tablets of Glandulen, an organic preparation stated to have a specific action in tuberculosis of the lungs. The treatment of disease by the administration of animal extracts or organs has recently developed very rapidly. The bronchial glands are now being used in the treatment of tuberculosis, and the latest preparation is Glandulen. The glands are taken from freshly-killed sheep, and after cleansing are washed with alcohol in order to remove all traces of fat. They are then dried in vacuo at a low temperature, powdered, and sugar of milk added in such proportion, that when compressed into tablets of 3½ grains, each tablet is equivalent to 3½ grains of the fresh glandular substance.

The trials which have been made of this remedy show that it speedily improves the general condition, the appetite and weight being increased. Patients gain strength, and their sleep becomes more refreshing, and night-sweats become less severe and gradually disappear.

MATHER'S PLAISTERS.

We have examined a number of samples of spread plaisters made by William Mather, Limited, of Manchester. The plaisters are spread upon various materials, such as swansdown, fine cotton, fine glazed cloth, and Hospital Black Plaister on black cloth. Indiarubber in combination with plaisters is now in general use, and is replacing the old waterproof strapping. Messrs. Mather prepare this combination with Emp. Belladonnæ, Emp. Roborans, etc. Infirmary Plaister is spread upon brown holland; it can be recommended as the best substitute for Guy's strapping. The London Agents are Messrs. Mace & Haldane, 94, Milton Street, E.C.

Acknowledgments.

The Clinical Journal (weekly).
St. Bartholomew's Hospital Gazette.
The London Hospital Gazette.
The St. Thomas's Hospital Gazette.
Thermal Springs. By Prosser James, M.D.
The Sphygmograph.
Journal of Balneology and Climatology.
The Stethoscope.
The Corpuscle.
Treatment.
The Climate of Bournemouth in relation to Disease. By Dr. A. Kinsey-Morgan.
The St. Mary's Hospital Gazette.
The Cyclist's Year Book.
The Dental Students' Calendar.
The Hospital.

Sport.

Association Football.

GUY'S v. CROYDON PARK.

Played at Honor Oak on January 8th, and resulted in a rather easy win for the Hospital by four goals to one.

Guy's throughout did nearly all the pressing, though at times the game was very fast. Guy's scored first through Lacey, Croydon shortly afterwards equalized through a mistake by Thomas, who had run out of goal too far to get back for a shot by their centre forward. Hughes put on the remaining three goals for the Hospital, one before and two after the interval. Team :—

GUY'S.—A. R. Thomas (goal); W. M. Robson, E. A. Longhurst (backs); R. W. B. Hall, J. McAlpin, L. J. Nash (half-backs); P. S. Mandy, H. K. Lacey, H. P. Wiltshire, A. Hughes, L. Humphry (forwards).

GUY'S v. WEYBRIDGE.

On Saturday the 15th the XI. journeyed to Weybridge in a decidedly wrecked condition, four of the usual team at least being absentees; a state of affairs we trust not to happen again with the Cup Ties so near. There seemed little chance under the circumstances of warding off the usual Weybridge defeat, and on going on the ground the familiar Weybridge cracks were awaiting us. The Hospital started down the slope with almost every man playing out of his position, it soon become evident that a fast game was going to be seen. McAlpin and Matthews paid particular attention to Cotterill, and Card ditto to Ward, as a consequence Weybridge were not so deadly forward as usual. McAlpin placed well forward, and enabled Mandy to run through with a clear field, and passing to Lacey, the latter nicely placed the ball in the net, a feat soon after repeated by Perkins, the goal-keeper having left his charge. Guy's with a clear two goals lead made Weybridge buck up, first Cotterill grandly headed through, giving Thomas no earthly chance; then their left half made the score level with a long curling shot. Half-time, Guy's two goals; Weybridge two goals.

The second half was very much a repetition of the first, both sides showed some good defence, once Cotterill seemed bound to score, but he failed, Matthews being responsible for pulling him up grandly somehow. Under the circumstances the Guy's team showed decent combination, and the result—a draw of two goals each—is a very fair index of the play. The capital way the team played, especially the reserve men so hastily summoned, points to the good football to be found at the hospital.

Of the reserve men, Matthews and Card were especially good. Thomas has not played better in goal this season. Hughes at left full back was immense, his tackling and kicking being well timed. Robson, too, showed improved form. McAlpin was very kind in his attentions to the big Weybridge centre, in so much that the latter seemed inclined at times to resent it. He should, however, shoot oftener when near goal. The forwards, notwithstanding their mixed-up condition, played well at times, most of them, however, seemed to lack training. Team :—

GUY'S.—A. R. Thomas (goal); W. M. Robson, A. Hughes (backs); L. O. Card, J. McAlpin, J. Matthews (half-backs); Steele-Perkins, P. S. Mandy, H. K. Lacey, L. Humphry, C. Witcomb (forwards).

GUY'S 2ND XI. v. CROYDON PARK 2ND XI.

Played at Croydon Park, on January 8th. Guy's began three short, and Croydon Park scored a goal in the first ten minutes. Camps soon after equalised at close quarters. Score at half-time was one all.

Guy's had much the best of the second half, but the shooting was weak. From a centre from Ash, Hughes obtained the winning goal. Croydon Park got away at times, but Smith was not called upon to defend, owing to vigorous play on the part of our backs. Just on time, Hughes missed an easy chance of scoring from a good centre from Camps, and the game resulted in a win for Guy's by two goals to one. Card played a good game at centre-half. Team :—

GUY'S.—W. H. M. Smith (goal); J. Matthews, H. Tipping (backs); S. Perkins, L. O. Card, —. Drake (half-backs); P. W. L. Camps, H. Turner, J. Ash, L. J. Hughes, P. A. Peall (forwards).

GUY'S 2ND XI. v. ENFIELD WEDNESDAY.

This match was played at Enfield on Wednesday, January 12th, and resulted in a draw—three goals each.

Enfield scored two goals before two of our men, who missed the train, had arrived, and almost immediately after added a third. Guy's then played up hard, and after a hot attack Enfield conceded a penalty, which, however, was not improved on. Greenfield opened our score after a good run by Camps, and just before half-time we scored again.

On resuming, the play was much faster, and some good play among our forwards resulted in a third goal by Card. Guy's worked hard to gain the advantage, but nothing else being scored, the game ended as stated above. Team :—

GUY'S.—A. R. Thomas (goal); J. Matthews, L. G. Nash (backs); P. P. Cole, D. G. Greenfield, J. Braithwaite (half-backs); S. Perkins, W. O. Roberts, L. O. Card, L. J. Hughes, P. W. L. Camps (forwards).

GUY'S 2ND XI. v. SURBITON 2ND XI.

This match was played at Honor Oak Park on Saturday, January 15th, and resulted in a win for Guy's by four goals to nil.

From the kick off Guy's immediately pressed, and after about ten minutes play Roberts kicked a good goal, owing to a miskick by one of the opposing backs. Guy's put on three more goals in short time, Surbiton only

playing ten men during the time the first two goals were scored. The game then became more even, and Surbiton gave Smith a few shots to save.

After the interval Guy's had most of the game, and although several corners were conceded, nothing else was scored. Team:—

GUY'S.—F. M. V. Smith (goal); H. Tipping, J. G. Miles (backs); J. Braithwaite, D. G. Greenfield, P. P. Cole (half-backs); P. W. L. Camps, W. O. Roberts, J. R. S. Ash, L. J. Hughes, P. A. Peall (forwards).

GUY'S 2ND XI. v. ROYAL COLLEGE OF SCIENCE 2ND XI.

Played on Wednesday, January 19th, at Wormholt Farm, and although Guy's were one short and had to play a substitute found on the field, managed to secure an easy victory by seven goals to one. Peall scored Guy's first goal soon after the start, and a few minutes later Card scored another. Miles scored the third goal from a long shot, and Peall was responsible for the fourth. Half-time scores—Guy's, four; Royal College of Science, nil.

On resuming, Hughes put a fifth goal for Guy's, and then the Royal College of Science scored by means of their outside left, against whom off-side was claimed, but disallowed. After this Guy's had all the rest of the game, Roberts and Card kicking a good goal each, the match ending as stated. Team:—

GUY'S.—F. M. V. Smith (goal); T. G. Miles, F. C. Cole (backs): A Substitute, D. G. Greenfield, J. Braithwaite (half-backs); A. H. Turner, W. O. Roberts, L. O. Card, L. J. Hughes, P. A. Peall (forwards).

Rugby Football.

GUY'S v. OLD LEYSIANS.

As anticipated, this match added one more victory to the home team's record, although it must be confessed that the Hospital did not show any improvement in their football. The game throughout was of a hard but scrambling nature, and was won through superior strength rather than skillful play.

Guy's had the best of the opening exchanges, and Walker, picking up neatly, ran in, and also converted his try. Following this, the Old Leysians attacked, but though they several times got near the line, never really looked like scoring. The Hospital forwards then rushed the ball down to the Leysians' territory, and Wetherell started some passing. When, however, the ball came to Pye-Smith, he missed the pass in an unaccountable fashion, but quickly recovering possession, dodged the full-back, and scored behind the posts. Cutler was successful with the kick. Up to half-time the game was of a more even character, and Guy's did not add to their score.

In the second half the game was very even, but luck was with the home side, and they scored twice through Wetherell and Thomas, Cutler converting the former's try. Thomas's try was the result of a brilliant piece of dribbling by Bagshawe, Ayre-Smith and Thomas, from their own twenty-five. The game accordingly ended in favour of Guy's by three goals one try to nil.

REMARKS.—The forwards played well, and Thomas in particular was seen to great advantage at his own game. The three-quarters do not understand each other at all, and consequently fail to combine. Moreover, they do not run straight down the field on receiving a pass, but rather directly for the touch-line, and as a result make no ground whatever. Sime and Jackson tackle well, but the other two are very uncertain. Ransford, at full-back, seems to have quite lost his last year's form, and now plays in the most rudimentary fashion. We incline to think that he would do better were he to train a little. The halves were satisfactory; indeed, Walker seemed to have improved since his last performances. Team:—

GUY'S.—A. C. Ransford (full-back); F. D. S. Jackson, F. W. Sime, C. T. Pye-Smith, F. J. Pierce (three-quarter-backs); F. C. Wetherell, F. E. Walker (half-backs); R. C. Mullins, D. H. Trail, A. A. Smith, T. P. Thomas, H. A. Cutler, F. R. Featherstone, A. H. Wall, H. V. Bagshawe (forwards).

GUY'S v. CROYDON.

A crowd of some three hundred spectators were present at this match at Honor Oak Park on Saturday, January 15th. As the Hospital had won the previous engagement this season, it was hoped that this game might end in another victory. These hopes were not realised, and although the game was perhaps not quite as one-sided as might appear from the score, Guy's never played anything like up to form. The game was fast all through. Guy's went off with a rush, and for a few minutes the Croydon line was in danger. Relief soon came through the forwards, and A. P. Patey made an opening for Blunt, who scored, the point being improved. The return was muffed, and Wetherell taking advantage of this, passed to Sime, who took the game well into the visitors' twenty-five. From a line-out Jackson took the ball, and out-pacing Trollope, scored a fine try which was improved upon by Walker. A strong forward rush now took the ball in Guy's territory, and after some good passing among the outsides, Patey scored an unconverted try. At half-time Croydon thus lead by one goal and one try to one goal.

The Hospital showed improved form in the second half, but were unfortunate in losing Walker. After Guy's had attacked, Patey broke away in an unaccountable fashion, and passing to Marples, the latter scored between the posts, and the try was converted. Guy's now rallied strongly, and were several times near scoring, but a brilliant piece of play by the Croydon three-quarter line, let in Flint, who scored wide out on the left. Myatt converted with a fine kick. Result—Croydon three goals one try to one goal.

REMARKS.—Apart from the fact that Croydon were the better side, the largeness of the score was due, to a great

extent, to the want of condition, especially of the forwards and full-back, who entirely lacked dash. With perhaps two exceptions, nobody tackled with any vigour. We do not wish to encourage unnecessary roughness, but "devil" is essential to good football. If the Cup is to be won, it is the duty of every member of the team to practise a certain amount of self-denial during the period of training. Two faults were very noticeable amongst the forwards. The heeling was very slow except when in their own twenty-five; also the pack never dream of breaking up quickly and getting across to help the three-quarters when defending their own line. Team:—

GUY'S.—A. C. Ransford (back); F. D. S. Jackson, F. W. Sime, C. T. Pye-Smith, F. J. Pierce (three-quarter-backs); F. E. Wetherell, F. E. Walker (half-backs); R. C. Mullins, A. A. Smith, T. P. Thomas, H. A. Cutler, A. H. Wall, F. R. Featherstone, R. C. Lawry, H. V. Bagshawe (forwards).

GUY'S v. STREATHAM.

Played at Honor Oak on Wednesday, January 19th, and resulted in a win for the Hospital by a goal and three tries to a try. This result is to be regarded as satisfactory after the disappointing form shown by the team on the previous Saturday. Guy's won the toss and took the pavilion end of the ground, which had the advantage of the wind. Streatham kicked off and play settled down in the visitors' territory and remained there for most of the first half. It was not, however, until twenty minutes had elapsed that Wetherell, bluffing his opposing half, ran from the half-way line, and doubling the full-back scored behind the posts, Cutler improving. Play was even for a short time, and when Pye-Smith obtained possession and passing to Sime, the latter made a lot of ground and then handed back to Wall, from whom it travelled through several pairs of hands until finally Ayre Smith grounded it over the line just outside the posts. The place kick failed, the ball striking the upright and glancing off. No further scoring occurred before half-time.

On resuming, Guy's again pressed, but Streatham, with the wind in their favour, made a better show, the full-back especially playing a very plucky defensive game. Our halves were hampered by the off-side tactics of their opponents, and so the combination suffered in consequence. However, it was not long before Sime, receiving the ball from his centre, punted over the full-back's head, and recovering the ball, made a fine run and got in behind the posts. Cutler's attempt to convert was not a good one. After this a further try was added by Morgan after some good passing among the backs, started by Wetherell, the place kick again failing. Just before the end the Streatham forwards, taking advantage of some slackness on the part of our backs, crossed our line and scored an unconverted try, and this was the last item of the match.

REMARKS.—The Streatham team has a very fair reputation, but Wednesday's form certainly did not justify it. The forwards rather shirked their work and the halves resorted to many shady tricks. Twice we observed the ball deliberately picked from the scrum, and several kicks were given against them for putting the ball in unfairly, to say nothing of their continuous off-side play. On our side the forwards were much better than on Saturday, packing quicker and more neatly, and the following up was distinctly good. They do not, however, break up soon enough when wheeling, and often screw round too far and then lose the ball. The three-quarters showed improved form, Sime on the wing was excellent; Pye-Smith passes far too soon, failing to draw his man. Ransford's kicks did not find touch as regularly as they ought to, but he fielded the ball well. Team:—

GUY'S.—A. C. Ransford (back); F. W. Sime, C. T. Pye-Smith, T. Morgan, F. J. Pierce (three-quarter-backs); F. C. Wetherell, F. D. S. Jackson (half-backs); A. A. Smith, G. Shorland, R. C. Mullins, T. P. Thomas, F. R. Featherstone, H. V. Bagshawe, A. H. Wall, A. H. Cutler (forwards).

United Hospitals' Hare and Hounds.

Jan. 22nd.—Ordinary run at Chingford.
Jan. 29th.—Run with Blackheath Harriers at Chingford.
Feb. 5th.—Match v. Oxford University, at Oxford.

The Inter-Hospital Cross Country Challenge Cup match is fixed for February 26th, and will be followed by the usual dinner at the Royal Forest Hotel. Bart.'s look as if they were determined to secure this trophy this year, for they have turned out W. V. Wood, and have promised to appear in numbers at the Wednesday runs, which commence on the 26th of this month at Chingford, Guy's men will have to train hard if we are to successfully defend our honour in this sport, for we are none too strong in this branch this year.

Betts' Testimonial.

The following further subscriptions have been received:—

	£	s.	d.
J. W. Washbourn, M.D.	1	1	0
Hugh Bennett, South Wales	1	1	0
T. Stevenson, M.D.	0	10	6
H. Couling, F.R.C.S.	0	10	0
W. E. Robinson	0	5	0
J. W. Hayward	0	2	6

NOTICE TO CORRESPONDENTS.

The Editor wishes it to be understood that no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

ED.—F. E. W.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold, will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

February.

Sat. 5.—Mr. Golding-Bird's take-in; Drs. R. H. J. Swan and F. D. Turner; Cl. P. Turner.
1.15 p.m., Clinical lecture by Dr. Taylor.
G.H.R.F.C., I., Leicester, away.
G.H.A.F.C., I., Ewell, away.
II., Ewell "A," home.
G.H.P.P.S. "The Pathology of the Thyroid Body." A. H. Kirkman.

Mon, 7.—Clinical Lecture by Mr. Lucas.

Tues. 8.—4.30 p.m., Meeting of the Dental Society.

Wed. 9.—Mr. Howse's take-in; Drs. H. Durbridge and E. E. Parrett; Cl. M. H. Thornely.
G.H.A.F.C., I., R.M.A., away.
Disguysed Minstrels at Streatham.

Thur. 10.—G.H.C.U., Address by T. Tatton, Esq.

Fri. 11.—G.H.R.F.C., Inter-Hospital Cup Tie, v. St. George's

Sat. 12.—1.15 p.m., Clinical lecture by Dr. Taylor.
G.H.R.F.C., I., Kensington, home.
G.H.A.F.C., I., Old Foresters, away.
Clinical Lecture by Mr. Lucas.
6.30 p.m., Dental Society's Dinner.

Mon. 14.—Goblins' Club Dinner at Frascati's.

Wed. 16.—Mr. Davies-Colley's take-in; Drs. F. W. Brook and D. J. Munro; Cl., G. E. Richmond.
G.H.A.F.C., I., Sittingbourne, away

Thur. 17.—G.H.C.U., Missionary Meeting.

Sat. 19.—1.15 p.m., Clinical lecture by Dr. Goodhart.
G.H.R.F.C., I., H.A.C., home.
II., Old Charltonians, away.
G.H.A.F.C., I., Eastbourne, away.
II., Crouch End Vampires, home.

Guy's Hospital Gazette,

FEBRUARY 5, 1898.

Some Unusual Cardiac Murmurs.

A CLINICAL LECTURE BY DR. TAYLOR.

January 22nd, 1898.

GENTLEMEN,—I shall take as my text to-day the case of a child who was in Miriam ward for bronchitis from December 10th to January 7th, though it is not of the bronchitis that I intend to speak, but of an unusual cardiac murmur which this patient presented; further, if I have time, I shall go on to discuss some interesting cardiac murmurs which are less frequently heard in practice. I will first give you briefly the details of the case.

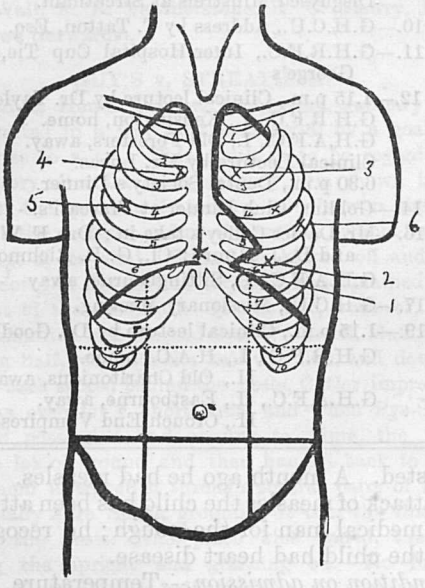
The patient, a little boy aged 2½, was admitted on December 10th for cough and dyspnœa. The child has always been healthy till two months ago, when he had a cough which has persisted. A month ago he had measles. Since the attack of measles the child has been attended by a medical man for the cough; he recognized that the child had heart disease.

Condition on admission.—Temperature, 100°; pulse, 56; respiration, 28. The child has dyspnœa, the alæ nasi being distended with each inspiration, but there is *no cyanosis*; finger ends are slightly clubbed. The child is fair and well developed, he is said to have wasted lately, but is not greatly distressed. There is no œdema.

Respiratory system.—Chest moves equally on both sides, and there is slight sucking in of the intercostal spaces. Ribs are beaded. The chest is resonant in front, but behind it is impaired at the left base up to the level of the 8th rib. On auscultation, mucous râles are heard on both sides of the chest; no bronchial breathing can be heard; but at the angle of the left scapula the râles are higher pitched than elsewhere.

Circulatory system.—No præcordial dulness; the cardiac impulse can be felt in the left intercostal space, just internal to the nipple line;

there is also epigastric pulsation; there is no thrill over the præcordia. On auscultation, a loud systolic murmur can be heard all over the præcordia. Its greatest intensity, however, is at the bottom of the sternum; from this point it is transmitted outwards to the left axilla with diminished intensity, but is not heard behind. Similarly it is transmitted along the right costal margin to the right axilla and also upwards with diminished intensity to the top of the sternum. The bruit is purely systolic in time, and there is no murmur in the pulmonary or aortic areas. I will indicate on the board the limits of the murmur.



Alimentary system.—Breath foul; no vomiting; abdomen supple and moves with inspiration; no ascites. Liver and spleen are both enlarged; the surface of the liver is smooth and not tender.

As regards the liver and spleen, you will notice from my drawing that there is not a very great enlargement of those two organs; the liver in children is frequently relatively greater than in adults and can often be felt below the costal margin, and the same applies to the spleen; in some children the former may be easily felt.

The case which I have just read out was only under my care for one week, but as we have not a great variety of material in Clinical just at present, and as the subject of these unusual cardiac murmurs is an interesting one, we will see what instruction we can derive from a discussion of the case, and of one or two others that I can call to mind. First, then, to finish this case. The next note we find is on the 14th, stating that the physical signs remain about the same; the next on the 22nd, stating that the respiratory signs are much improved, and a week later that the patient was eating better. Then, on January 3rd, there is a note made of my own observations on the heart sounds, and a day or two later he was discharged, his bronchitis being much better but the murmur unaltered.

Now, the question to consider is the nature of the cardiac lesion in this case, and the best way to arrive at that will be to take all the possible murmurs that can be heard. I will write them upon the board and then proceed to discuss them. Those commonly familiar to us, as associated with the four orifices of the heart, are aortic, mitral, pulmonary, and tricuspid. We know that murmurs, associated with, or produced at, these orifices are heard at certain areas, spots or regions of the chest, and better there than anywhere else. For example, the mitral at the apex, the aortic at the second right intercostal space, the pulmonary at the second left space, the tricuspid over an extensive triangular-shaped space, practically coextensive with that part of the surface of the right ventricle which appears on the front of the heart. I will refer presently to the distinction of systolic and diastolic murmurs and to their direction of propagation, a quality dependent, as you know, upon the time of their occurrence, that is to say of the direction of the blood stream at the time. Other murmurs, occasionally heard over the præcordial area and likely to lead to mistakes are—

That due to an aneurysm.

That due to perforate septum ventriculorum, and

That due to patent ductus arteriosus.

It will naturally be suggested by some that as I have put down a murmur due to perforate septum ventriculorum, why should I not put down a murmur due to patent septum auriculorum. Well, if you like to add it to the list, you can; up to the present, however, I have never heard a murmur that I can remember to have been proved to be due to such a condition.

And now to consider which of all these murmurs the case of our little patient really presents. I think we can safely exclude aortic, pulmonary and mitral; as to the last, a systolic mitral is loudest in a different position, viz., the apex, and may be traceable out into the axilla; it may or may not be heard in the back; moreover, if heard in the back it does not necessarily follow that it is traceable right round the axilla

into the back, and if you lose it in the axilla, you may still sometimes hear it at the angle of the scapula. And if the murmur can be heard on one side of the back, it can not uncommonly be heard on both sides of the back, the right as well as the left.

Associated with mitral disease one may find a mitral regurgitant murmur which is continued to the right over the sternum as far as the right nipple, but in this case it is quite possible, or even probable that a tricuspid regurgitant murmur is present in addition. I am inclined to think that in such a bruit a tricuspid element is always present, although it may be impossible to separate it from the mitral murmur; all the less should the sound be regarded as a mitral murmur if, though transmitted right across the sternum, nothing can be heard behind. As to tricuspid regurgitation, it is quite clear that this is just the situation for one, but we will return to this condition presently. Next as to a murmur due to the presence of an aneurysm. This may produce murmurs in positions which are not commonly associated with the orifices of the heart; if local and in such a situation there may be reason to suspect aneurysm and not valvular lesion. Aneurysms are more common in adults, both in advanced life and in middle age, but are highly improbable in a child of $2\frac{1}{2}$ years of age: when one does occur in a child, the cause is usually embolism, and this commonly takes place in such small arteries as those of the brain. This is certainly not applicable in the case before us; in fact, we may put aneurysm quite out of the question.

Then as to the murmur of a perforated septum ventriculorum; briefly, the position of the present murmur, in my opinion, points to such an abnormal want of development being present in this case.

Lastly, we have the patent ductus arteriosus. This is a condition not often recognized clinically, but a few cases have been recorded. Dr. Hilton Fagge mentions a case which occurred a long time ago. A common feature of these cases is the presence of a long, loud, and often "wavy" kind of murmur, the sound becoming louder and softer over a short period; it is heard in the pulmonary area or near it, and the murmur beginning in the systole, extends also over the diastole. Some such cases have subsequently proved to be patent ductus arteriosus. I was shown a case a few weeks ago which was probably of this kind, in a young woman aged from 26 to 30. She had some cardiac symptoms; she was not a great sufferer thereby, and the murmur was similar to what I have described. There is certainly no resemblance between such cases and the case now before us.

Returning now to the perforated septum ventriculorum: as you have heard before, the murmur is loudest at the lowest part of the sternum, and can still be heard at various distances from that. Now, how to exclude a tricuspid regurgitant? As far as we know both history and pathology show that a tricuspid systolic murmur is nearly always secondary to disease of the left heart, or of the lungs, being in the latter case more common with advancing years; as for example, long-continued emphysema and chronic bronchitis or fibrosis of the lungs, or fibroid phthisis, or bronchiectasis, another long lasting disease. In all these you get backward pressure, dilated right heart and the usual train of symptoms. In disease of the left side of the heart, the tricuspid incompetence may follow mitral regurgitation, and more especially mitral stenosis. In the case before us, however, we have no reason to suppose that mitral disease is present; the bronchitis was acute and rapidly cured. One month's illness is not likely to cause tricuspid regurgitation of this degree. It is true that the question has been raised, that he may have had some mitral regurgitation, but the right sided regurgitation was far in excess of any that could be caused by a mitral disease indicated by such a murmur.

Consequently, I think we may fairly say that the child had no evidence of any primary lesion to produce tricuspid regurgitation, and thus, by exclusion, we have only left perforation of septum ventriculorum.

You know that in early fœtal life we pass through a stage of development, at which time we have a heart with one ventricle and two auricles—the triloculate heart. The heart is converted into the complete mammalian form by the upgrowth of a septum from the apex to the base. This may never become complete; "perforation" in that case is obviously a misnomer: "defect" would be better. You may get an actually perforated septum in a patient by a malignant endocarditis ulcerating through the spot where the septum is weakest. Such a condition does not seem likely in this case, where there is no history of heart disease. An aperture, occurring in a child's septum, especially that of one so young as this, is probably a fault of "omission" and not of "commission." Is it necessary to remind you or are you all familiar with, the so-called "undefended space"? Looking between two aortic valves, viz., the anterior and the right posterior, and just below their junction, you see a triangular

space with rounded edges, which is composed entirely of tendinous tissue and contains no muscle. I am not prepared to say why there is no muscle there; we must accept the fact. Now, this is the space that is apt to be defective, and also the most likely spot for a septic endocarditis to perforate. So far we have assumed that the hole through the septum is the result of defective development—of failure to grow. There is one definite reason sometimes present that may account for the defect. An early disease, that every now and then develops in fœtal life, consists of an obstruction of the pulmonary orifice, and this may be due either to a stenosis of the valves, or to a want of expansion of the trunk of the pulmonary artery, or to a constriction of the infundibulum. These changes are attributed to an intra-uterine endocarditis.

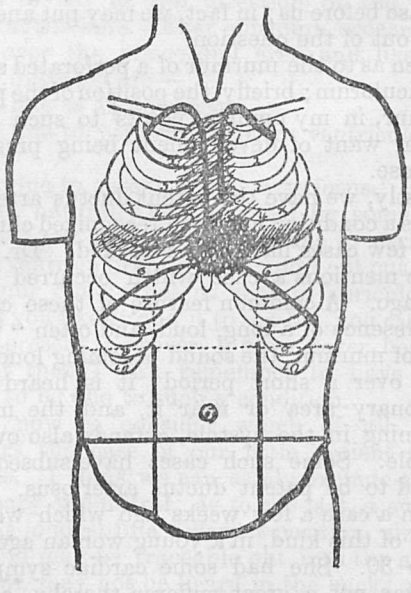
Now, if this obstruction is there during fœtal life, the pressure in the right ventricle must be increased, and consequently the developing septum is pushed over to the left, and there is a constant opposition to the ascent of the partition, and a tendency to leave an orifice.

Under these circumstances a common type of congenital malformation of the heart may result; the pulmonary artery is obstructed at some point, and the septum is never completed but is pushed over to the left, so that the aorta appears to come off from the right ventricle: the parts being so shifted that the opening of the aorta is more directly over the right than the left ventricle. In ordinary cases of malformation and congenital disease of the heart, there is a condition of extreme cyanosis, a condition formerly spoken of under the term "Morbus Coeruleus" in which one sees thick, blue-black, clubbed finger ends.

None of these characteristics exist in this patient, and for this reason it seems almost certain that the defect of the septum, if granted as present, was caused, not by increased pressure, but simply by an inherent deficiency in growing power; in other words, the cause cannot be recognised; it is spontaneous, idiopathic, unexplained. In such a case, should we assume that the pulmonary artery is patent with a perfectly normal circumference, then some blood must pass from the left ventricle to the right with each contraction of the heart, and not from right to left as in the case where there is obstruction at the pulmonary orifice. Consequently there will be no difficulty in the aeration of the blood, and the patient will experience little or no inconvenience.

A word or two about cyanosis. The old idea was that it was due to the mixing of the venous with the arterial blood, as a result of which the pink appearance of the skin and mucous membranes was changed to blue or bluish black. You still find traces of this view in those who believe that it is produced by a deficiency of the interauricular septum, a permanent patency of the foramen ovale.

But it has been shown in various ways that it is not caused by the mixing of the blood-current, but by the obstruction of the pulmonary artery preventing the proper access of the blood to the lungs: it is simply a case of a high degree of venous stagnation. So then, in this case, we suppose that arterial blood passes into the right ventricle and not venous into the left; therefore the patient is not likely to become cyanosed. But do these patients suffer from nothing? No doubt there is a certain amount of wasted power during the systole; a teaspoonful, or whatever the amount may be, passes back again from the left ventricle; this must eventually tell on the heart and thus make a certain amount of difference. Practically there is no doubt that these patients may grow up to adult age, sometimes to advanced life. I mentioned, a little while ago, that I had another case in connection with this subject to bring before your notice; it is that of a little girl who was brought up to see me by an old Guy's man. She was twelve years old and had a cardiac murmur. As to her



symptoms, they were not marked; if she ran much she got out of breath, otherwise there were scarcely any cardiac symptoms; the murmur was first discovered at the age of two or three. When she was quite a baby she had some respiratory troubles, but the doctor then attending her did not discover any cardiac lesion; the girl looked perfectly healthy and was not in the least distressed. I will make a diagram of the murmur and will indicate by numbers the intensity of the sound and its distribution. In addition to these auscultatory signs there was, on palpation, a systolic thrill to be felt over the affected area, and this was well marked. If we follow out the argument in the same way as before, we shall see that the diagnosis of a perforate septum is even more probable in this case; the child is older and she is not suffering from cyanosis; in addition there is a systolic thrill. But as regards the last point I have this to say, that the more one hears of thrills, the less one relies on them as points in diagnosis. What is the formula now used? A thrill is often held to show mitral stenosis: it has been put as tersely as that, but that is far from correct: certain murmurs of mitral stenosis are very frequently accompanied by a thrill, but the latter is certainly not peculiar to them.

I have felt at different times a thrill with nearly every murmur—Aortic systolic and diastolic; mitral, systolic and diastolic; pulmonary systolic, and tricuspid systolic. Also with the murmurs of aneurysm and perforated septum. As a matter of fact, it it most common with the murmur of mitral stenosis. Considering all this, it is very difficult to see of what value a thrill can be in diagnosis, if one does not understand the mechanism of its production. What we do know of thrills is simply this, they are vibrations which are palpable, either because they are slowly delivered, *i.e.*, of low pitch, or because they are very large, *i.e.*, very loud; or because they are musical, *i.e.*, very regular, and for that reason easily transmissible through tissues. And it is not clear how these conditions are related to the structural changes which may have occurred at the edge of the valvular or other aperture concerned.

At any rate I am not deterred from diagnosing the same conditions in these two cases, because a thrill is present in the one and absent from the other.

Some years ago I published the case of an infant who died of broncho-pneumonia, and in whom a similar præcordial murmur was found to result from a defective septum ventriculorum.

Before I had quite realized this myself, a case occurred of a young woman who had mitral disease, and in whom there was a loud systolic murmur over the sternum, accompanied by a systolic thrill. I was led to diagnose perforate septum together with mitral stenosis; that is to say, I thought that she had mitral stenosis, and as an accidental combination, defective septum ventriculorum, but the post-mortem proved that she had only tricuspid regurgitation. A year or so later I had a similar case, and forgetting my former experience fell into the same error. One reason for my making these diagnoses was that some years previously, at the Evelina Hospital there was a child who had mitral stenosis with a presystolic thrill and murmur at the apex, and also a loud systolic murmur accompanied by a systolic thrill over the sternum. In this case there was a deficient septum ventriculorum, and in addition there was mitral stenosis. I carried this in my mind and applied it to the other case, which unfortunately failed. Tricuspid regurgitation, therefore, may produce a murmur and a thrill, closely resembling that of a deficient septum. Time does not allow me to say anything on the present occasion of the murmur of patent ductus arteriosus, nor of another very interesting murmur, that of pulmonary regurgitation.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman	15.	Tuberculous knee.
Charity	10.	Pott's disease.
	11.	Fibro adenoma of breast.
	17.	Ovarian tumour. Umbilical hernia.
	Cot.	Multiple nævi.

Cases under Mr. Davies-Colley.

Cornelius	1.	Fractured base. Trephining. Death. (Hæmorrhage into lateral ventricle by contre-coup.)
	19.	Compound fracture of femur.
Lydia	1.	Carcinoma of breast. Amputation.
	3.	Tuberculous tissue. Scraped.
	5.	Strangulated femoral hernia. Operation.
	6.	Fractured base. Compression. Trephining.
	20.	Carcinoma of colon. Descending.
	21.	Fractured femur.
	22.	Tuberculous knee. Excised.
	Cot A.	Fractured femur.

LUKE 1. ? Tuberculous knee. Improvement under bin-iodide.
2. Tuberculous knee. Ankylosed. Excised.
4. Suppurative arthritis of hip after scarlet fever. Ankylosis with flexion.
5. Torticollis with facial hemi-atrophy.
7. Recurrent epithelioma of lip.
8. Rodent ulcer.
9. Rodent ulcer.
13. Hydrocele. Radical cure.
19. Ununited fracture of femur. Wired.

CASES UNDER MR. LUCAS.

ASTLEY COOPER 8. Run over. Fractured spine. Death.
19. Injury to shoulder. ? Separated upper epiphysis.
29. Crushed arm. Amputation.

JOB 6. Iliac abscess.
16. Tumour over great trochanter. Fibroid bursa.
20. Carcinoma pylori. Gastric jejunostomy.
21. Tumour in neck. Operation. Cold abscess.

LYDIA 10. Old tuberculous knee with necrosis. Ankylosis.
16. Intestinal obstruction. Laparotomy. Strangulated interstitial hernia.

CHARITY 5. (Transferred to Philip P. R.) Movable kidney and calculus. Nephro-lithotomy.
22. Strangulated inguinal hernia. Kelotomy.
23. Cystic adenoma become sarcomatous. Secondary masses in liver. Amputation of breast.

CASES UNDER MR. GOLDING-BIRD.

LAZARUS 4. Bronchocele with encapsuled adenomata. Left lobe and isthmus removed.
7. Gluteal abscess following sacro iliac disease.
9. Ankylosed elbow. Traumatic ulnar paralysis. Nerve dissected out.
15. Tuberculous elbow. Excised.
16. Cancer of rectum.
17. Retained testis. Castration.
18. Morrant Baker cyst from superior tibio fibular joint.

MARTHA 16. Carcinoma recti. Colotomy.
21. Fractured patella. Wired.

CASES UNDER MR. JACOBSON.

DORCAS 1. Tuberculous glands in neck.
3. Duct. Cancer of breast.

NAAMAN 21. Epithelioma linguæ. Whitehead excision.

CASES UNDER MR. SYMONDS.

LUKE 16. Carcinoma of larynx.
17. Simple stricture of pylorus. Gastro-jejunostomy. Anastomosis and Halstead's suture.

PATIENCE 5. Chronic ulcer of leg. Amputation.

CASES UNDER MR. DUNN.

LAZARUS 5. Chronic abscess in groin. ? Cause.

MARTHA 10. Stricture of rectum.
11. Scirrhus mammæ.

STEPHEN P. R. Ovarian cyst. Laparotomy. Removal.

"Clinical."

JOHN 1. Mitral stenosis. Backward pressure.
2. Ascites. Anæmia. Blue line.
3. Lead-palsy. Flexors and extensors.
4. Removal of malignant from great and small intestine. Double Murphy's button. Recovery.
6. Aortic stenosis and regurgitation. Pleurisy. Mitral stenosis and regurgitation.
7, 10. Appendicitis undergoing resolution.
9. Appendical abscess. Large fæcal concretion.
11. Bilateral convulsions. Æt. 6.
12. Acute varioliformis of chest, abdomen and back.
14. Empyema opening into lung. Recovery.

MIRIAM 18. Old pleurisy. Basal phthisis.
19, 21. Enterica.
22. Pleural effusion.
24. Congenital heart. Æt. 18. ? Patent ductus arteriosus.
25. Mitral disease. Pericarditis.
26. Neurosis, simulating meningitis.
29, 32. Pneumonia. Pleurisy.
30. Acute phthisis. Laryngitis.

Case for Diagnosis.

Elizabeth P., æt. 66. Admitted on December 21st for abdominal pain and retching. As regards her previous medical history there is nothing important to note, except that she has suffered a good deal from dyspepsia, vomiting, and flatulence, but not during the last few years. Two months ago she had a slight blow on the right side of her abdomen; since then she has never been wholly free from pain in that region, the pain being relieved by lying on the left side. She has had occasional vomiting during the last two months, the vomiting bearing no relation to the ingestion of food.

On December 20th about 8·30, she was seized with sudden severe abdominal pain while on a visit. She was able to walk home with assistance, but as the pain increased and retching came on, she was brought up to the hospital.

On admission.—Temperature, 97°; pulse, 104, regular; respiration, 36. Patient was sick just before admission into the ward. On being put to bed, she lay on her right side with her knees drawn up. Tongue rather dry and covered with yellowish fur. Abdomen a little full; muscles rigid on any attempt being made at palpation, tenderness and rigidity more marked at upper part of

abdomen. Pain is referred to the left of and above the umbilicus. No hernia or abnormal swelling to be detected. Patient's bowels had been open on the morning of the 20th. Respiratory system normal except for slightly impaired resonance at both bases and a few small râles. Circulatory, urinary and generative systems normal.

Progress and treatment.—A soap enema was administered, resulting in the expulsion of a few small lumps of fæcal material. Patient was given brandy ʒj, in hot water; extractum belladonnæ, gr. ¼, as pill, 4tis horis. Milk.

December 22nd.—Pain less severe; abdomen less rigid and tender. Hot belladonna fomentations.

23rd.—Sharp pain in left side of chest, more marked on deep inspiration. Temperature, 96·4°.

24th.—Temperature, 110°; pulse, 120. Patient does not feel so well. Arrowroot; brandy ʒss, 4tis horis.

26th.—Abdomen quite supple; edge of liver can just be felt below the costal margin. Epigastrium tender. Temperature, 101·4°; pulse, 124. Well-marked dulness at right base and in right axilla extending over the lower four or five ribs; breath sounds deficient over this area, also diminution in vocal resonance. Tinct. opii. ♏ 5, vin. antimoniale ♏ 5, liq. ammon. acet. ʒij. aq. ad. ʒj, 4tis horis.

27th.—Abdomen more rigid. Pain and tenderness. Pulse 120, intermittent. Temperature still up. Patient was given ammonium carb. gr. 5, and vin. ipecac. ♏ 10. 4tis horis. Omit mist. of 26th.

28th.—Patient complains of griping pains in the abdomen, and a "forcing down" pain in rectum. Bowels have been opened frequently, the motions being small and rather loose. Pulse 120, not intermittent. Omit belladonna fomentations.

29th.—Patient vomited during the night, and again this morning. She complains of a feeling of faintness. Temperature, 99·4°; pulse, 120.

30th.—Patient still complains of the "forcing down" pain. Dulness at right base less. Sonorous rhonchi and mucous râles over both sides of chest, more marked at bases.

31st.—Much pain in left axilla, especially on deep inspiration. Chest condition much the same. Tinct. hyoscyamus ʒss, aq. chloroformi, aq. camph. ʒss. 4tis horis.

January 1st.—More râles and rhonchi to be heard. Breathing very harsh in the left axilla. 4.0 p.m., patient rather dusky, slight orthopnœa. 8.0 p.m., patient complains of faintness, and sharp pain in the left side. Breathing rapid and laboured. A well-marked pleuritic rub could be heard low down in left axilla. Brandy ʒss 4tis horis, emp. belladonnæ.

2nd.—4.30 a.m. Patient's condition worse. Intense pain in left side, extreme faintness. Surface cold, patient pallid. Pulse fair, respirations rapid. Mist. ammonia, ʒj spt. Hot fomentations to left side of chest.

4.40 a.m. Patient died suddenly.

(For key to this case see last page).

Tartar.

Paper read before the Dental Society, by Mr. A. E. ROWLETT.

MR. CHAIRMAN AND GENTLEMEN,—This evening I wish to bring before your notice the subject of Tartar, and though I feel how inadequate my treatment of it must necessarily be, I nevertheless venture to rely upon your generosity to overlook any shortcomings that criticism may suggest.

The deposit of tartar upon the teeth has been noticed by writers upon dental surgery from the earliest times.

Fox, in his "Natural History of Human Teeth," states that with the exception of caries, nothing is so pernicious to a healthy condition of the mouth and the durability of the teeth as an accumulation of tartar.

That Hunter realised the importance of this concretion may be gathered from the following extract from his "Surgery," 1771:—"From what has been said of the nature and use of enamel, it is evident that whatever is capable of destroying it must be hurtful. Therefore, all acids, gritty powders, and injudicious methods of scaling the teeth are prejudicial, but simply scaling the teeth—that is, clearing them of stony concretions, which frequently collect about their necks, whilst nothing is scraped off but that adventitious substance—is proper and useful. If not removed by art, the quantity of stony matter is apt to increase and affect the gums, but not in the very angle, because the motion of the gum commonly prevents the accumulation of it at that part. I have seen it cover not only the whole tooth, but a great part of the gum. In this case there is always an accumulation of a very putrid matter, frequently considerable tenderness and ulceration of the gum, and scaling becomes absolutely necessary."

Tartar may be divided into two main classes—

1. That deposit derived from the saliva, often known as salivary calculus.

2. That taking origin from the blood, and called in America, scrumal or sanguinary calculus.

Of the first, many varieties are mentioned, but as these merely depend upon distinctions in colour, and as the colour may be easily altered by the action of medicines, tobacco or foods in the mouth, such distinctions are of little value. The most useful classification is into soft and hard tartar.

Soft tartar is light yellow in colour when freshly deposited, though growing darker with age, often occurs in large quantities, may be deposited in a very short space of time, and does not offer nearly the same difficulties in removal as does the hard variety.

Hard tartar, on the other hand, is much darker in colour, only occurs in small quantities, is slowly deposited, and requires a good deal of force to dislodge it.

Composition.—The deposits of salivary origin consist mainly of the phosphate and carbonate of calcium, with an intermixture of epithelial and other organic matter,

and as the organic matters undergo decomposition, offensive gases, more or less held in solution, are also present.

The salts and animal matter vary in their proportions according as the tartar is hard or soft; consequently, no two analyses will yield the same results.

According to Scheveortskey, 100 parts contain—

Water and organic matter	22·07
Magnesium phosphate	1·07
Calcium phosphate	67·18
Calcium carbonate	8·13
Calcium fluoride	1·55
	100·00

Dr. Stevenson gives the following:—

	Soft.	Hard.
Water and organic matters ...	21·48	17·51
Phosphate of magnesia ...	1·31	1·31
Phosphate of calcium, with a little carbonate and trace of fluoride	77·21	81·18
	100·00	100·00

Origin and deposition.—That it is derived from the saliva is agreed upon by almost all writers. Of late years, however, several attempts have been made to prove the microscopical organisms of the mouth directly responsible.

Lebeaume compared tartar to coral-formations as a breeding place and habitation for the mobile bacteria of the mouth.

Mandl suggested that it was caused by the accumulation of the calcareous remains of vibrios, whilst Klein, Galippe and others consider it an excretion of micro-organisms. The difference between tartar and coral, as well as between bacteria and coral-forming polyps, is too great to warrant the comparison. Again, tartar is chiefly formed at the points where the salivary ducts open into the mouth, especially upon the lingual surfaces of lower incisors—parts of the mouth at which bacteria have little chance of gaining foothold, since the tip of the tongue keeps them almost free from organisms and soft deposits. W. D. Miller also states that the amount of tartar in a mouth is by no means directly proportional to the number of bacteria present in the same mouth.

For other reasons, too, the explanation of tartar as the excretions of bacteria is inadmissible. Tartar contains roughly about 20 per cent. of organic matter and 80 per cent. salts; bacteria, on the other hand, only contain about 5 per cent. ash. Consequently, the percentage of ash in tartar is only about $\frac{1}{100}$ percentage of ash in bacteria.

The theory accepted by W. D. Miller, and many others, is this:—Normal saliva contains calcium carbonate and calcium phosphate—salts which are only slightly soluble in water; these are retained in solution in the ducts and glands by dissolved carbonic acid. If from any cause, such as expulsion or combination, the carbonic acid is removed from the saliva, the salts are precipitated as tartar.

W. D. Miller says that the cause of precipitation is merely the escape of carbon-di-oxide when the saliva comes into contact with the air. This, however, does not satisfactorily explain why tartar is more easily precipitated in neglected mouths. Watt accounts for it by saying that by the decomposition of the nitrogenous compounds of which food is largely formed, ammonia is liberated. This combines with the carbonic acid, and precipitation takes place.

These processes may be demonstrated by the following experiment:—Small quantities of calcium carbonate and calcium phosphate are introduced into water charged with carbon-di-oxide; the mixture is then shaken at brief intervals until the water becomes clear. The vessel is then opened carefully, and the carbon-di-oxide allowed to escape, when the precipitation of the salts held in solution will produce a distinct cloudiness. The same precipitation is produced if, instead of allowing the carbon-di-oxide to escape, we add ammonia. As the soft tartar is deposited, it enfolds in its substance minute particles of food.

In connection with this food-envelopment, an interesting experiment was made by Charles White. He observed, when examining some specimens of human maxillæ from the Stone age, that although but little caries was present, some of the lower jaws were thickly coated with tartar.

Remembering the fact that in the tartar of our day food particles may be found, he made a rough microscopical analysis of some of this deposit, hoping thereby to gain some idea of the aliment of these prehistoric men. Dissolving some of this tartar in dilute hydrochloric acid, he decalcified it, and carefully washed and collected the sediment. This proved to consist of the following organic remains:—Husks of corn, hair from the outside of husks, spiral vessels from vegetables, husks of starch with the cell contents destroyed, the point of a fish's tooth, some round ruby-coloured bodies which he could not identify, a conglomeration of oval cells, probably of fruit, and portions of wool. The general substance of the tartar was made up of an amorphous mass of what might be disintegrated epithelium.

The facility with which this soft tartar is deposited is in some cases surprising, patients whose teeth have been thoroughly scaled returning after quite a short time with a fresh and considerable deposit. Thin coatings will form upon dentures, especially vulcanite, in some mouths even in a few days.

In the transactions of the Odontological Society for 1879–1880, a curious case of deposit of tartar upon a denture is reported. A lady came to a dental practitioner in order to have some teeth fitted temporarily, subsequent to the extraction of several lower incisor roots. This was accordingly done, and the patient sent away with instructions to return after a few months, by which time the gums would be more settled. At the

time appointed, however, no patient appeared, and not until five years later did she return. On examination of the lower jaw, no sign of the denture was to be seen, but in its place was an immense accumulation of tartar. On removal, it was found that the temporary denture was embedded in, and completely hidden by, the concretion. Although during the operation of removal the patient thought that a large portion of her jaw was coming away, she stated that up to that time she had suffered no material discomfort from it. The positions most usual for the deposition of tartar are—

i. At the back of lower incisors and canines—parts of the mouth always escaping that friction from the toothbrush and from the passage of the food during mastication, which polish the surfaces of the teeth and in a great degree prevent the accumulation of calcareous particles.

ii. Upon and around any masticating tooth which from decay has become tender to pressure and change of temperature, and so has become disused. Thus, if a patient be unable to eat upon one side of the mouth, the outer surface of the molars and bicuspids on that side will shortly become coated with deposit. The rapidity of the deposition upon a painful upper molar may also be accounted for by the fact that the quantity of saliva and also the percentage of salts in it are increased by a nervous stimulus.

iii. Towards middle life, as the alveolar process and gums naturally recede, the necks of the teeth become exposed, and form convenient places for the lodgement of tartar; and probably in such cases the deposit is but a sequel to the absorption, and in no way its cause.

iv. Any depressions or foreign bodies which can in any way form retaining points, as ill-fitting clasps on dentures, honeycombed teeth, etc.

Generally speaking, the parts most prone to the deposit of tartar may be said to be the surfaces of the teeth opposite to the openings of the salivary ducts into the mouth.

Soft, white and yellowish-white deposits are always found in the mouths of pregnant women, and in persons who habitually use soap as a dentifrice.

Tartar occurs with great frequency in persons of feeble constitution, who secrete a constant and copious flow of viscid saliva, and whose gums are soft, turgid and of a dull-red colour.

Inhabitants of marshy and humid regions are much more liable to these deposits than those who live in warm or temperate climates; and in some districts where nasal catarrh is prevalent, a deposit is found on the palatal surfaces of upper incisors. The deposit usually starts at the neck of the tooth, and is gradually piled up until it assumes a shape triangular in section, the base directed towards the gum.

Serumal or Sanguinary Calculus.—This is described as a structureless calcareous deposit found generally as a rim situated at the neck of the tooth, just beneath the gum margin, or in advanced cases as a granular deposit on the root, which may extend right up to the apex. It is generally of a dark-green colour. In old abscessed teeth it is not infrequently seen enveloping the whole of the root. In such cases the colour is nearly always brownish.

The root of the affected tooth is denuded of its cementum, and the granular deposit adheres so closely that its removal becomes a work of difficulty. A viscid serous fluid may exude from the neck of the tooth. This is due to the irritated condition which gives rise to the deposit. Thus, whilst salivary calculus causes inflammation, sanguinary calculus is a result of inflammatory action. At one time, Rigg's disease—more generally known, perhaps, as Pyorrhœa Alveolaris—was believed to be caused by this serumal deposit.

W. D. Miller defines this disease as "a chronic, destructive inflammation of the root membrane of the tooth, combined with more or less severe inflammation of the gum, and necrosis of the alveolar process in the district of the affected teeth." Charles Tomes, in 1871, first opposed this theory of the origin of Pyorrhœa Alveolaris, and then stated that tartar, so far from being the cause of the disease, was of quite secondary importance, and sometimes even was entirely absent.

Besides the organic origin of the serumal deposit, A. Miller gives certain inorganic substances, such as Cu. Hg. Fe. and Pb. as capable of producing this condition. A gouty or rheumatic diathesis may also act as a predisposing cause.

The effects of tartar, especially when it is deposited in much bulk, are both local and general. The more common sequelæ are:—Catarrhal inflammation of the gums and loosening of its adhesions to the necks of the teeth; superficial ulceration upon the borders of the gums and upon the tongue, lips or cheek; inflammation and superficial hæmorrhage of the gums; if the gum is involved where it is continuous with the root membrane, a sensitiveness of the tooth; and (what is not the least unpleasant result) a decomposition of the accumulated purulent mucous and consequent "fætor ex ore."

Occasionally, however, it may give rise to more serious conditions, such as tumours and spongy excrescences of the gums of various kinds, cancer of the lip, necrosis and exfoliation of the alveolar process and portions of the maxillary bones, anorexia, derangement of the whole of the digestive apparatus, catarrh, cough, diarrhœa, diseases of various kinds in the maxillary antra and nose, pain in the ear, headache, melancholia, hypochondriasis, etc.

Taking these facts into consideration, and also the nuisance which such a deposit must prove, not only to the person himself, but also to all those with whom he associates, it is clearly our duty to consider in what way it may be prevented, or if present, most effectually removed.

As regards prophylactic measures, the general state of health should be kept as high as possible, and the habitual use of a toothbrush night and morning and after every meal, supplemented by the use of a quill toothpick and waxed floss silk should be advised.

As for the dentifrice to be used, cuttle-fish powder should form an ingredient, although it must be remembered that once a deposit of tartar has formed, no amount of brushing will remove it. The use of acids must be wholly discountenanced as being injurious to the tooth-substance, although Salter recommends them in the case of serumal deposits, to be immediately followed by an alkali.

The accepted method is by the use of various instruments called scalers, by which the concretion is scraped from the tooth, any roughness which remains being subsequently polished smooth. The scaling of teeth is an operation which in general has been much neglected —in the first place, perhaps, because it is exhausting and unpleasant to the operator, and secondly, because most patients do not at all appreciate the object of it. Many, indeed, ask whether the teeth are not injured by it, and not infrequently date all subsequent dental troubles from the removal of the deposit. However, the necessity for the periodical removal of tartar, as well as for the filling of teeth, is by degrees becoming more generally recognised, so that many patients will of their own accord suggest the scaling of their teeth.

Scalers are of many patterns. Perhaps one of the chief points to be taken into consideration in selecting instruments is to choose one at least which is small enough to remove deposits from the very apex of a root without unnecessary laceration of the surrounding tissue. They are used in two ways, according to their shape, either with a pulling motion or with a pushing motion. The first variety somewhat resemble a probe, and are passed up or down the tooth, as the case may be, until it is felt that the extreme extent of the deposit is reached; the point is then inserted beneath the tartar, and this is detached by a pulling motion.

The flat, spring-tempered instruments requiring the pushing motion to detach the deposit are used upon the top of the tooth and towards the gum. The blades are sometimes a little concave, in order to approximate to the shape of the root more nearly, and thus to prevent slipping. This pushing motion is best adapted where the concretion does not envelope more than two-thirds of the exposed portion of the tooth.

W. D. Miller thus describes the operation:—"For this operation it is above all else necessary that the hand should be perfectly firm. To remove tartar from the upper front teeth, I grasp my instrument with the whole hand, somewhat like an enamel chisel, place the thumb upon the cutting edge of the tooth to be scaled, and then carefully insert the point of the instrument beneath the gum right beyond the tartar, so as to scrape this down with a steady hand. The instrument must be sharp enough to thoroughly remove the hardest tartar, and not to glide over it. For the lower teeth the instrument is held like a pen, so that the third finger may be supported upon the edges of the teeth. For removal of tartar from the left half of the lower jaw, I stand behind the patient and to the right; for the right half, in front of the patient, and work mostly through the mirror."

If the pockets of the gum are so deep as to prevent efficient treatment, they may be slit down to the full extent of the deposit, the consequent cicatrice helping the gum to resume its normal shape. If this is not done, all debris should be syringed out, and then a broach, round which strands of cotton wool, soaked in some antiseptic, have been wrapped, should be passed up. Every particle of tartar must be removed, as the smallest granule will readily form the nucleus for a fresh deposit.

After the teeth have been thoroughly scaled, they should be polished by means of leather cones or wooden points charged with powdered emery, corundum, or pumice-stone, followed by rottenstone, Arkansas stone, or whiting.

The Disguysed Minstrels at Tunbridge Wells.

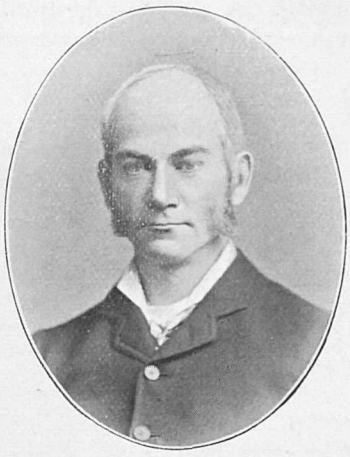
On Tuesday last, February 1st, a matinée performance was given by the Disguysed Minstrels at the Great Hall. Thanks to the untiring efforts of the old Guy's men in this town, the hall was filled with a charming and most appreciative audience. About 75 per cent. of the audience was composed of members of the fair sex, and therefore, though the applause was not overwhelming in intensity, their appreciation of the amusement provided was without question. The show went well from start to finish. No encores were allowed, owing to the necessity of cutting short, as far as possible, the programme, though encores were evidently much wished for. We thought that the following items seemed to go down the best:—"This is how he laughs," "The Society Nigger," "Little Dolly Daydream," and "The Twin Duet."

After the performance a tea was provided for the younger members of the troupe at the "Clarendon Arms," while the older and more sedate people tea'd at the different homes of the old Guy's men. At 6.30 a most sumptuous dinner was set forth at the "Calverley Hotel," to which about thirty guests sat down. To say that the dinner was all that could be desired would give but a faint idea of the most delightful hospitality dispensed on this occasion, and every member of the troupe left Tunbridge Wells that night filled with appreciation, too deep for mere verbal expression, of the kindness which he had met with that day.

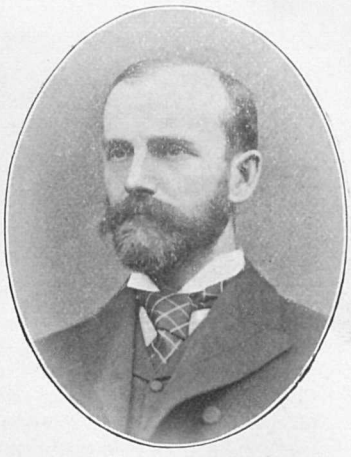
The old Guy's men, to whom the credit must be given of the entire proceedings of that day, were Messrs. Manser, Bishopp senr., Adeney, Starling, Bishopp junr., Robinson, and Rix.

Guy's Hospital London University Club.—The annual dinner of the above club was held at the Café Royal, on Friday, January 28th. Mr. H. G. Howse presided. Twenty-three members and their friends were present.

Mr. Laidlaw Purves



Mr. Jacobson.



Mr. Symonds

Mr Davies-Colley.

Mr. Howse.

Mr. Golding-Bird

Dr. Brailey.

Mr. Higgens.

Mr. G. B. Smith.

THE STAFF OF GUY'S HOSPITAL. No. 3.

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GUY'S HOSPITAL

Passim.

The first Rugby Cup Tie of the season, as far as Guy's is concerned, is down for decision on Friday next. As everyone knows, George's are to be our opponents, and will undoubtedly prove to be no mean opponents either. Their side contains some very fine players, notably Tucker and Orme, who will both have to be carefully watched, and if we are to win at all comfortably, considerably better combination will have to be shown by our backs than has been apparent lately. True, we beat Catford Bridge and had a good bit more of the game than the score implies, but the chief credit of that win belongs to the forwards, who, though without Trail, were easily able to hold their opponents and give the halves many opportunities. We have noticed with pleasure that some of the team have really been putting in a little training work this week. We only wish we could say the whole fifteen had. Some men who are certain of their places, however, do not seem to have any idea of doing so, and apparently think they owe no duty to the hospital or to their fellow students whatever. Fortunately there are some brilliant exceptions, and it will be owing to them, and them only, if the Rugger Cup ever comes back to Guy's.

The Soccer team easily won their Cup Tie against Charing Cross by seven goals to nil, but next round they have a considerably stiffer job in hand, having to tackle Thomas's or University. It is unfortunate that the best half-back that the team possesses should have been temporarily disabled in the last game, and we sincerely hope that the accident will not deprive the team of MacAlpin's services in the next Cup Tie.

The second Soccer team has this season been doing remarkably well, and the members have shown considerable keenness throughout. This has been, to a great extent, due to the exceptional energy displayed by the captain, D. G. Greenfield. It is, therefore, with much regret that we hear that he has been incapacitated from playing for the rest of the season, owing to a fractured clavicle. We wish him speedy union of the separated fragments.

Many will have viewed with deep regret the destruction of many of the all too few remaining trees in the park, that has been going on during the last week. Alas, but their room is wanted more than their company, and within a short time a companion building to the one opened last June by the Prince of Wales, will be seen rearing its majestic roof above the sordid levels of the laundry and hop warehouses.

It is intended that the new building shall be temporarily used as a nursing home, and possibly a portion of it used as a ward while the surgical wards are being renovated and re-floored. Subsequently the building will be handed over to the Medical School, and thus complete what will be the most magnificent set of hospital laboratories in London.

The reception of the Disguysed at Tunbridge Wells surpassed even their great expectations. The house was full, and could have been filled again with fresh applicants. The performance was received most appreciatively, lack of time only forbidding many encores. Afternoon tea at various hospitable homes preceded the most enjoyable dinner so generously provided at the Calverley Hotel by the old Guy's men of the district. Music and the like after dinner went most merrily, and it was very evident that the troupe thoroughly appreciated the kindness and hospitality of their excellent hosts.

Last Thursday evening, the Disguysed Minstrels gave their entertainment at Brixton. The hall was very well filled, and the audience, after the first comic song, became most appreciative. Encores were demanded for "This is how he laughs," "The Society Nigger," "His parents haven't seen him since," "My Angeline," "Dinah Doe," and, of course, the "Twin Duet." We have rarely seen Miller in better form, his wheezes and likewise his sneeze being extremely mirth-provoking. Altogether the entertainment was a great success.

We said good-bye with many regrets and good wishes to the late R. M. O. B., W. Tyson to wit, who is now favouring Lowestoft with his genial presence and general practice, both of which are unexceptionable. At the hospital he has always proved himself one of the very best, and while we feel his absence very much, yet we are full pleased to see our Bill settled.

The announcement of the re-appearance of the *Guyoscope* was received with enthusiasm, but the paper itself, when it did appear, aroused

mixed feelings of pleasure, doubt, and even disappointment. To begin with, its price is doubled and its shape altered. Personally we far prefer the old size and general get up. The only thing to be said in favour of the present style seems to be that it will easily go in the pocket without folding. However, we are extremely glad to have it back with us again, and no doubt its future numbers will quite justify its resuscitation.

THERE are still some copies of Wilks' picture to be disposed of. The excellence of the portrait is quite sufficient excuse for our again calling the attention of our readers to it. Applications should be sent in to the GAZETTE office.

WE have it from the Hon. Sec., Mr. Symonds, that the date of the Biennial Dinner has been fixed for Tuesday, July 5th. The Whitehall Rooms have again been engaged, and Dr. Goodhart is to occupy the chair.

THE performance of the duties of Extern Obstetric Resident immediately following those of dresser for the week, is hardly conducive to respectable editorial work; so it is earnestly hoped that all the shortcomings of this present number will be generously excused.

The Physical Society.

CLINICAL EVENING, January 22nd, 1898. G. E. RICHMOND, M.B., in the chair. Present, 38 members. The following cases were shown:—

Mr. V. E. COLLINS.—Cystic tumour over head of tibia.
Mr. D. P. WATSON.—Paralysis agitans in a young man.
Mr. F. O. STŒHR.—Aneurysm of first part of aorta.
Mr. R. H. SWAN.—Injury to elbow-joint. Paralysis of ulnar nerve.
Mr. A. W. ORMOND.—Systic tumour of neck.
Mr. F. E. WALKER.—Tumour in left loin.
Mr. A. A. MILLER.—Disease of left knee-joint.
Mr. F. O. STŒHR.—Multiple hydatids of liver, spermatic cords, and on the abdominal wall.

Essays for the Treasurer's Prize on Infection should be sent in by March 1st, 1898.

Papers by Guy's Men.

Distemper as a Cause of Puerperal Fever. By Octavius Bevan, M.D., B.S. Durh.—*Lancet*, 22nd January.

Some Remarks on Rectal Surgery. By Thomas Bryant, M.Ch., F.R.C.S.—*Ibid*, 29th January.

Court of Committees.

THE House Committee has been empowered to extend the system of telephonic communication in the hospital at a cost not exceeding £150.

The committee have been authorised to carry out certain arrangements with the steward of the Students' Club whereby an improved dietary will be provided for the residents at an additional annual cost of £156.

An enquiry officer will shortly be appointed for attendance in the out-patient department, at a salary of £100 per annum. The appointment, in the first instance, is of an experimental character for a period of one year.

The Court has accepted a tender from Messrs. Mackie and Co. for the electric lighting of the north wing of Hunt's House, at a cost of £380.

A sum of twenty-five guineas annually has been granted for the chemical examination of material from the wards, and applications will shortly be invited from candidates desirous of undertaking such examinations.

The Court has sanctioned the creation of the temporary appointment of a fifth assistant physician.

Charles Murchison Scholarship in Clinical Medicine.

THE next Examination for this Scholarship will be held at the Royal College of Physicians of London, on Monday, the 18th day of April, 1898, and following days.

The Scholarship is open to any Student of Medicine who has been a registered Medical Student during a period of not less than four, and not more than six years at a Hospital in London or Edinburgh, recognised by the Royal College of Physicians of London, or by the Medical Faculty of the University of Edinburgh, and whether holding a Medical qualification or not.

The Examination will be conducted both orally and in writing, and will include—

(*a*) Examination of Patients, with reports on their cases.
(*b*) Questions on Pathology and Treatment, and
(*c*) Examination on Specimens.

The Scholarship is of the value of Twenty Guineas, and is tenable for one year.

Intending Candidates are required to send in their names to the Registrar of the Royal College of Physicians, Pall Mall East, London, not later than April 4th, with evidence of the duration of their Medical Studies from the Deans of their respective Schools.

(The Examination for 1899 will be held in the University of Edinburgh.)

EDWARD LIVEING, M.D.,
Royal College of Physicians, *Registrar.*
London,
January, 1898.

Serum Treatment of Disease.

A Paper read before the Physical Society on December 11th, 1897, by Mr. F. DOUGLAS TURNER.

(*Concluded*)

Tetanus.—With regard to tetanus, the experimental evidence, on animals, of the value of a tetanic antitoxin, is nearly as strong as for diphtheria. Behring and Kitasate first worked at the preparation of a curative serum, and later Roux, and especially Tizzoni and Cattani. It was found that, for animals, the serum was absolutely protective, and that it would certainly cure if injected as soon as the slightest symptoms of tetanus became apparent, but that, with local symptoms well established, the results were slower and less certain with symptoms general, success seldom followed. Again, the quantity required to effect a cure increases enormously with the length of time from infection.

Preparation of serum.—To obtain toxine, cultures are made on broth containing one-half per cent. sodium formate. If this is kept in glass-stoppered bottles, it is quite unnecessary to ensure absence of oxygen. Toxine is ready in seven to nine days so strong, that $\frac{1}{1000}$ cc. kills a guinea-pig in 60 hours. Immunising a horse is a very much slower process than for diphtheria, lasting as long as 18 months, and has to be conducted with the greatest caution to prevent the death of the animal. Toxines are used at first for injection, and later dead, and finally living and sporing cultures. Three weeks must elapse from the last injection before the serum is taken.

Results.—The death-rate from tetanus previous to serum treatment is very variably given, ranging from 21 to 80 per cent. Roux is probably about right in calling it 50 per cent. It was generally thought also, that mild chronic cases with a prolonged incubation period and a slow onset often recovered, whilst acute cases, with a short incubation period and a rapid onset generally died in a few days. This was as true for horses as for men. Of 159 cases collected, treated with serum, 53 died, giving a death-rate of 33 per cent. Excluding 36 cases with 18 deaths, which either died on the first day of treatment or else treatment was begun after the tenth day of symptoms, the death-rate is only 28·4 per cent. Of these 159 cases 43 were acute, *i.e.*, having an incubation period of less than 8 days, and 26 of these died, giving a death-rate of 60·4 per cent. Of these cases 9 were not severe and all recovered. In 23, in which the severity is not stated, 17 died, and in 11 severe cases 9 died. Of 99 chronic cases, *i.e.*, those having an incubation period over 8 days, 19 died, giving a death-rate of 19·3 per cent. In 17 cases, of which 8 died, it cannot be determined whether they were acute or chronic. In 19 cases of which only 3 recovered, it is definitely stated that no improvement whatever followed the serum treatment, but in all the others definite though sometimes only temporary improvement was seen. The general opinion of those who have used the serum seems to be that in chronic mild cases it is undoubtedly of use and gives better results than any other form of treatment, but that in severe cases cure has been noted in so few that the serum cannot be said to be of any use. These bad results are partly, no doubt, due to insufficient dosage, partly to use of serum late in the disease, and partly to the fact that tetanus does not show any local symptoms by which it can be recognised like diphtheria, but gives rise to no signs until the toxines have got a bit stale and have spread all over the body. But it is probably also partly due to the fact that the antitoxine is not a true toxine, being only partly prepared by injections of toxine, partly by injections of bacilli. The use of toxines, as will be seen later, is perhaps the golden rule for the preparation of a useful serum.

Lately, Behring has prepared a new antitetanic serum, which is curative for animals, even when acute symptoms have already developed. He refuses, presumably for commercial reasons, to divulge the method of preparation, but it is probably made by injections of the renal toxines only, *i.e.*, the bodies which really produce tetanus, separated from everything else. If this is true, it would be a true antitoxic serum, and from it we might expect as good results as from the diphtheria antitoxine. No cases treated with this have yet been published.

Streptococcal injection.—It is to Marmorek principally that we owe the antistreptococci serum, but it is now made by other workers, and it has been tried in almost every variety of streptococcal infection. It differs in its method of preparation from the two foregoing serums, for no medium has yet been described, on which toxines of any virulence can be obtained; so the horse is immunised by injecting gradually increasing doses of virulent cultures. A culture grown for any length of time on ordinary media loses its virulence, but extremely virulent cultures can be obtained by repeated passage of the cocci through rabbits. It is found that when a specimen is examined, the longer the chains of cocci the less the virulence. Supposing a few of these cocci are injected into a rabbit, it drops down dead suddenly within forty-eight hours, and its blood is found to be absolutely swarming with them. Flasks are planted out direct from the heart's blood of a rabbit dead six or eight hours, the medium used being a mixture of ascitic fluid and broth. In eighteen to twenty-four hours the culture has reached its maximum virulence. The local reaction and general condition of the horse after injection are very much worse than for diphtheria. The horse is kept three weeks from the last injection before being bled.

With the exception of Marmorek's own experiments, there are none in which the serum has been proved to have any protective value, and from experiments made at the British Institute of Preventive Medicine, it is stated that Mamorek's serum will not protect even up to 10 cc. against Marmorek's own streptococci cultures, and much more, therefore, will not protect against more

virulent cultures still. It is even doubtful if the horse injected is protected, as even though the animal is partly naturally immune to streptococci, there is always great reaction after fresh injections, however much may have been previously given. With regard to the serum sent out by the British Institute, I am allowed to state authoritatively, that as far as animals go, it has no protective power whatever. Earlier it was thought to be protective against weak cultures, but this result was obtained on less accurate experiments than are now possible.

Results of treatment.—The number of cases I have been able to collect is unfortunately too small for a conclusion of any value to be arrived at. Marmorek states that he has treated 411 patients suffering from streptococcal infection of various forms by means of his serum with good results. Of these 165 cases were of severe erysipelas. The serum gave marked relief in from five to twelve hours, and the death rate was 1·63 per cent. Previously it had been 5·12 per cent. In twenty-five cases of various kinds published in England, there were four deaths. In the first of these there was marked improvement, but the case died from diarrhœa; in the second, there was at first slight improvement; in all the other twenty cases, improvement is noted as following the use of the serum. I have also collected fifty-seven cases of puerperal septicæmia, chiefly English, with sixteen deaths, giving a death rate of 28 per cent. Excluding two cases, that died within twenty-four hours of treatment, the death rate is 24·5 per cent. In three of those that died there was temporary improvement. In the cases cured most observers are agreed that improvement followed the use of the serum, as regards temperature and pulse generally. The ordinary treatment was of course not omitted. The serum has also been tried by Marmorek and others in scarlet fever, but the results are not of any value. It has also been tried in ulcerative endocarditis. In two cases it had no effect. In one, the patient responded promptly to treatment, and was apparently cured. There is also the case under Dr. Washbourn this year in Mary, in which a good result seemed to be obtained. The opinion of those using the serum prepared, based on clinical experience of the cases, is certainly somewhat in its favour, but considering its absence of protecting power in animals, and the small number of cases collected, its values as a remedy must be considered to remain unproven.

In Paris, at the Pasteur Institute, work has recently been done which places the serum treatment of streptococcal infection on the same sound scientific basis as the treatment of diphtheria. That is to say, a real antitoxic streptococcal serum has been prepared by the inoculation of horses with actual streptococcal toxine. The medium used for the growth of the culture is kept a secret, but toxines are obtained so powerful that $\frac{1}{1000}$ cc. will kill a guinea-pig in forty-eight hours. Using this toxine horses have been immunised, and their serum has been proved on animals to be really curative. This serum is the only anti-streptococcic serum now sent out from the Pasteur Institute, as they have entirely given up preparing serum by injections of living cultures. No results in the treatment of cases in man have yet been published, so we cannot come to any conclusions about it, but if the serum is a truly antitoxic one prepared from toxine as declared, it is on the lines by which it is now generally believed the only really effective serums can be obtained. It is interesting perhaps to note that a stapho-toxine has been obtained.

Pneumonia.—Klemperer, Foo, Emmerich and others first worked on this disease and proved that the blood-serum of rabbits immunised to the pneumococcus possessed the property of protecting a rabbit against infection with this organism. It was also proved that the serum would cure the disease in animals in its early stages. Dr. Washbourn, however, brought the treatment of pneumonia in human beings to a practical issue. A horse is used for immunising. The cultures are planted out direct from rabbits' blood, and are used after twelve to eighteen hours' growth. The injections are first made with broth cultivations previously heated to 60° for one hour, later with living agar cultivations, and lastly with living broth cultivations, a horse being the animal used. Dr. Washbourn has proved this serum to be protective and curative for animals. Unfortunately the last lot of serum obtained from the immunised horse does not possess any power, and so the sale of the serum has had for the present to be discontinued. Dr. Washbourn thinks that this is merely a temporary defect due to the fact that the serum was drawn off too soon after the last injection of culture. I have obtained results of twenty cases treated, of which three died; of fourteen no particulars are given; of the other six, in two it is stated that the serum was of no use, in the other four it seems to have caused improvement. The results are too few for any conclusion to be arrived at.

Snake Bite.—I have taken the question of treating snake bites with a prepared serum next, because the experimental work on the subject is very conclusive. Calmette, in 1894, showed that serum from an animal immunised to cobra venom by injections of gradually increasing amounts would protect and *also cure* other animals which had been inoculated with a fatal dose of the venom. Fraser confirmed these results, and it is fully established on many animal experiments made then and since, that the serum has a very definite curative action. Serum prepared by injecting cobra venom has been tried as a curative agent for other venoms, and is in most cases effective.

Six cases have been published in which the serum has been tried, and in each case the patient was cured. In one of these cases another person was bitten at the same time and was not treated with the serum and died. In two at least of the other cases the snake was proved to be of the deadly species.

Calmette recommends as a dose 20 cc. of his serum, but Fraser says 300 cc. of his are necessary. Early treatment is imperative.

The number of cases is, of course, too small for any conclusions to be drawn, but from the experimental evidence we may certainly hope for good results.

Tuberculosis.—Richet and Hericourt worked at the preparation of a serum for this disease before 1890, but were unsuccessful. Maragliano since then has prepared a serum, which he claims to be effective in a certain number of cases, but says it is only of use where no destructive foci of disease exist. He immunises the animal used, which is a horse or an ass, by injections of a mixture of two preparations, called respectively A and B tuberculin. The immunisation takes six months, with doses gradually increasing from 2 to 50 m.gms. After the immunisation, Maragliano says the animal does not react to tuberculin, thus proving its protection. At the British Institute one horse was injected with 740 cc. of tuberculin, but though protected itself, its serum had absolutely no protective power for other animals. Maragliano's own serum is the same. They neither protect a guinea-pig from a minimum fatal dose of tuberculin, nor, when injected into a tuberculous animal along with tuberculin, do they prevent the usual reaction. In 527 cases, mostly from Italian observers, 352 are stated to have improved under treatment, and 65 are said to have been apparently cured, only 12·3 per cent. We do not know, however, how many of these cases have since relapsed. Maragliano gives as a dose 1 cc. every alternate day for 10 days, then 1 cc. every day for 10 days, and then 1 cc. twice a day for as long as is necessary.

Considering the usual course of the disease, the few apparent cures with the antituberculous serum do not in any way prove its value. Considering also that outside Maragliano's own laboratory the experimental evidence is against the serum, we are driven to the conclusion that at present the serum treatment of tuberculosis is unfortunately of no use whatever.

Typhoid.—As it was thought that the typhoid toxines could not be obtained from an artificial cultivation, Kitasato, Chautemesse, Pfeiffer, and others have immunised guinea-pigs, etc., by injections of dead typhoid bacilli against inoculations with living organisms. They found that the serum of immunised animals had a certain protective, but no curative action, against the bacilli in animals. Pfeiffer's experiments have been much doubted by other observers. The serum of convalescent typhoid patients also, does not kill the typhoid bacillus. In the well known serum test, the serum has merely an agglutinizing action on the germs, and in no way renders them less virulent. At the British Institute, it was found that a horse could be completely protected, and that its serum would give Widal's test when diluted to 1/200000, but that it had absolutely no protective action whatever against the typhoid bacilli. It is the same with every antityphoid serum at present on the market. In twenty-two cases in which these serums have been used, twelve are said to have improved with it, but in most of these the serum was given so late that the normal fall of temperature cannot be excluded. Quite recently Chautemesse, of the Pasteur Institute, has succeeded in obtaining true typhoid toxine, by making the cultivation on a mixture of human blood serum and ox bone marrow. This toxine can be separated from the bacilli, and when injected produces true typhoid fever with diarrhœa, necrosis of Peyer's patches, etc. Using this toxine, horses have been immunised and are said to yield a strong serum, which has proctective and curative properties for animals. This serum is now being tried in two Paris hospitals, but no results have yet been published. Most of the evidence is against the anti-typhoid serum prepared by Pfeiffer's method being of any use whatever. Probably Chautemesse's serum will be found of real use, but practically nothing is known of it yet.

Cholera.—Pfeiffer and others immunised animals by inoculating them, first with dead, and later with living cultures of the organism, and the serum from these animals was said to protect other animals against the cholera germ. Salter, Ransom, Roux, Metchinkoff, and Behring doubt the value of Pfeiffer's serum. Metchinkoff, especially, has separated the toxines from the bacilli, and has prepared from the toxines a true antitoxine serum, which is said to have a protective and curative action against both bacilli and toxines. Nearly all the weight of the experimental evidence is against Pfeiffer.

Kitasota has treated 193 cases, out of 270 occurring, with serum prepared after Pfeiffer's method. Total death-rate was 51 per cent. Death-rate of cases treated with serum was 32·6 per cent., but it is not shown how the cases for treatment were chosen. The previous death-rate in Japan is stated to have been 70 per cent. These few cases cannot be considered of much value. Pfeiffer's serum is probably of no use, and with the true antitoxin cholera serum we have only experimental results.

Bubonic plague.—Yersin has done most of the experimental work in connection with an anti-plague serum. He produced a protective serum in rabbits by inoculating them with dead cultures. Later he immunised a horse and obtained a stronger serum having both protective and curative properties. The German Commissioners sent to India to report on the plague, state that the serum has a curative value for apes.

Results of 106 cases treated.—Twenty-three died giving a death rate of 21 per cent. Previous mortality is said to have been 80 per cent. The best results are obtained with early treatment and big doses. Just lately M. Yersin has stated, that with serum from another horse recently immunised, the death rate was only reduced to 49 per cent. More evidence is wanted before a decision can be arrived at.

Rabies.—Following up Valli's early work, Tizzoni and Centanise have attenuated rabic poison by submitting it to peptic digestion for varying lengths of time. With this, using gradually stronger doses, they have immunised rabbits, dogs and sheep against most virulent rabic poison. They then showed that the serum of the immunized animals would protect other animals, and further that it

would in many cases cure experimental rabies when injected within a few days after the first symptoms had appeared. The advantages of the serum treatment of hydrophobia over M. Pasteur's method are obvious, and supposing the above experiments to be correct we have certainly evidence in its favour, but the experimental work has not been as yet confirmed by other observers, and I can find no cases treated by this method.

Malignant Disease.—Richet and Hericourt have attempted to treat malignant growths by local injections of the serum of animals previously inoculated with the juice from other growths. There is no evidence that it ever produces anything but a temporary shrinkage in a few cases. If it ever acts in any way, it is only by producing a local inflammation and partial breaking down of the growth, and it has no specific action whatever. It is not founded on any experimental evidence, or even on any logical reasoning, and is useless as a curative agent.

Gonococcal infection.—It is generally believed that the gonococcus secretes no soluble toxines, but that the toxines are contained in the bodies of the organisms themselves. Christmas, however, of the Pasteur Institute, has in the Pasteur Annales published an account of how he obtained a toxine, and from it a gonococcal antitoxin. He first grew a culture on rabbit's serum, and then planted it out on to ascitic bouillon containing 1 per 1000 parts glucose. From this, after an interval for growth and after filtration, he obtained a powerful toxine. Injecting this into animals, he got severe constitutional symptoms and emaciation. A drop of it placed in a rabbit's eye produced typical gonorrhœal conjunctivitis. With this toxine he has immunised goats, and has found that their serum has a feeble antitoxic serum. No one else has as yet succeeded even in obtaining the gonotoxine.

In syphilis the serums prepared are founded on no scientific or logical basis, many of them being normal sheep's serum or serum from patients in the secondary stage of the disease, and they are, of course, of no use whatever. Manehouse has immunised animals against anthrax by injections of anthrax cultures. He says that a certain degree of protection was afforded by the serum obtained, and slight curative action was shown.

Sanarelli has, for yellow fever, obtained from a horse, after inoculation, a weak protective serum, but none with any curative effect.

Carrasquilla has prepared an antileprous serum, and says, that it reduces the severity of the usual relapses of the diseases, but this has not been confirmed. In variola, the serum of a vaccinated calf has been suggested and used in a few cases, and in measles the serum from patients convalescent from the disease has been tried in four cases.

Normal serum.—A paper on serum treatment would not be complete without some reference to the effect of injections of normal serum. It is found that normal serum acts as a direct cardiac stimulant, increasing both the force of the heart's beat, and a general arterial tension. Normal serum is also a food. If rats are starved, only a little water being given them, they lose weight at the rate of 25 grammes a day, and die on the fifth day. If, however, 1·2 cc. normal serum are injected hypodermically every day, the other conditions being the same, the rats only lose weight at the rate of seven grammes a day, and their lives are prolonged ten to fourteen days. Perhaps these actions of normal serum will go far to explain the improvement shown in man after the injection of those serums, which experimentally on animals yielded no good results, as, for instance, the antistreptococcic serum.

Summarising the conclusions arrived at, it will be seen that only diphtheria antitoxin has been proved beyond all question to have a decisive curative action. Tetanus antitoxin is only of use in chronic cases. In streptococcal infection, pneumonia, typhoid fever, cholera, bubonic plague, there is not yet sufficient proof that the respective antitoxic serums prepared by injections of living cultures are of use, and the serums prepared by injections of toxines are so new that no results of treatment on men have yet been published, although the animal experiments are decidedly hopeful. In tuberculosis, malignant disease, syphilis, leprosy, etc., the respective serums are of no use whatever. In snake bite the evidence is scarcely more than experimental, but is hopeful. In gonococcal infection, the evidence is only experimental.

Put in another way this means that the serums prepared by injections of toxines *are* of use, possessing both antitoxic and anti-microbic powers, and those prepared by injections of living cultures are of no proved value, possessing no antitoxic and probably slight if any antimicrobic power. It is pretty generally believed, therefore, that it is to the true antitoxic serums prepared by injections of virulent toxines, that we must look for really effective curative serums, and, as I have shown, much new work has lately been done in this direction. The problem of the near future, therefore, is to discover artificial media in which the genus will grow and form toxines in the same way as in the living tissues, that is, to approximate the conditions of the artificial cultures to the conditions found in living tissues. When this has been done in all cases, and powerful toxines have been prepared, there seems no doubt but what we shall obtain also powerful curative serums for all bacterial diseases.

Serum treatment, therefore, is yet in its infancy, but without a doubt it has a grand and wonderful future. The principle of the treatment has been firmly established. it is only the details that remain to be worked out, and when this has been done the serum treatment of disease will be one of the greatest, if not the greatest advance ever made in medical science.

In conclusion, I beg again to thank you for the honour you have done me in allowing me to read this paper before you, and I wish also to record my thanks to Dr. Salter for his very valuable assistance. He has kindly lent all the apparatus, photographs and animals shown, and it is to his unique experience that I am

indebted for much of the newest information on the subject.

Photographs, as well as the actual apparatus illustrating the whole preparation of antitoxine serum were shown. Live guinea-pigs, illustrating the local effects of an injection of diphtheria toxine, and dead animals showing hæmorrhagic suprarenals from the same cause were also exhibited

Nursing News.

Two months ago we had to record that Miss Cawley (Sister Martha) had been obliged to leave on account of the serious illness of her mother, and now we regret to say that she has been compelled to decide that her duty still lies at home, and she has therefore resigned her ward.

Miss Tuke has recently been taking temporary charge, but on Monday last, Miss Fox (Sister Margaret) took her place, as the newly-appointed Sister Martha.

The vacancy caused in the surgery by Sister Margaret's promotion, was filled on Friday, February 4th, by Miss Witherington (Sister Maud).

Nurse Nutt, Nurse Powell, and Nurse Clarke, have accepted work for one year in Africa, as Nursing Sisters, to accompany Major Lugard's expedition. They will probably sail on February 19th, with the last detachment from England.

Their undertaking is an adventurous one, and our best wishes for health and success will go with them. We anticipate a cordial welcome to them on their return to their old hospital.

Nurse Poole (Stephen Ward) left the Hospital on January 27th, and after some months' rest will join our Private Nursing Staff.

In consequence of all these changes the following promotions have been made :—

Probationer M. Gray—Head nurse in Stephen ward.
Probationer Lambert—Head nurse in Bright ward.
Probationer Percival—Head nurse in John ward.
Probationer Sutton—Head nurse in Dorcas ward.
Probationer Marsh—Head nurse in Miriam ward.
And in addition—
Probationer Tippetts has been appointed head nurse in the theatre, and
Probationer Lloyd in the Isolation ward.

On Monday, January 31st, twenty-nine additional Probationers arrived in the hospital, and on Feb. 2nd one more, to complete the thirty required.

Tuesday, Feb. 1st, will live long in the memories of our present nursing staff, as the day when our new system of "off-duty" came into force.

Miss Evelyn Warlbatt has been appointed Matron of the Kendal Hospital.

Poems by the late John Lucas Tupper.

Selected and Edited by William Michael Rossetti.

Those who are well acquainted with our museum will readily call to mind the well executed drawings of Tupper as well as his diagrams, including those of the Skeleton Swordsmen. A short notice of this artist is to be found in the "History of Guy's Hospital." It is therein stated how for some years he was employed in the school, and subsequently became drawing master at Rugby. He added sculpture to his acquirements, and produced the well-known statue of Linnæus in the Oxford museum.

Whilst at Guy's, Tupper became a member of the Pre-Raphaelite Club, which included Dante Rossetti, Millais, Holman Hunt, and others amongst its fraternity. They inspired a short-lived Journal called the *Germ*, and to this Tupper contributed both in prose and verse. He left behind him several poems which are now published for the first time, and edited by William Rossetti. The latter considers him to have been a man of considerable poetic gift, and highly deserving of explicit and honorable record; he states also that Dante Rossetti had a very high opinion of Tupper's poems, noting especially that entitled the "Garden of Eden." Space will not allow me to give more than a specimen exemplifying his highly imaginative and sensitive poetic nature. The following is dedicated to his wife :—

TO ANNIE.

Annie, if any verse of mine might win
The obdurate heart of Time to let it live,
When I am mingled with the fugitive
Fleet elements wherein all lives begin
And end: if any echo ghostly thin
Survive of me for men to hear at eve
When the boughs tremble as the sunbeams leave—
That echo, thy dear name shall tremble in.

For singing over of thee and rarest things
That make the earth a perfume and a song,
And of vague solace of imaginings,
Thou wilt so closely unto these belong,
That they will tell thy name as with a tongue,
And bring the sighs thy poet's passion brings.

One cannot say that the Borough is a soul-inspiring place, but at the same time it is evident that it contains nothing which could damp the poetic ardour of John Tupper, any more than it could that of John Keats. The mention of the latter reminds me that the *Hampstead Annual* gives some reminiscences of the poet and the place of his residence. This, however, is said not to be strictly correct. A great tribute to Keats' genius may be found in the life of Lord Tennyson, wherein the late Poet Laureate says, "There is something of the innermost soul of poetry in almost everything he wrote."

I may remind the reader that John Tupper was in no way related to Martin Tupper, the author of "Proverbial Philosophy," although it is a curious fact that I believe the latter's father was a Guy's man, and his name, Dr. Martin Tupper, may be found amongst the Presidents of the Physical Society. SAMUEL WILKS.

Novelties.

MATERIA MEDICA, PHARMACY, ETC.

D.C.L. MALT EXTRACT.

The large and increasing amount of extract of malt prescribed by medical men is the best proof that can be given of the appreciation with which it is regarded as a nutrient and remedial agent. There is no standard for extract of malt in the British Pharmacopœa; no doubt, in the new work expected shortly, this important extract will find a place. The value of a malt extract is judged mainly by its diastasic power, but there are other considerations which should also be taken into account, such as its flavour, appearance, and keeping qualities. The preparation of the extract is a very simple matter. The malt is exhausted with water, and the infusion thus obtained is evaporated to a suitable consistence. The amount of diastase and the flavour depend upon the selection of the malt, and the careful evaporation to which the infusion has been subjected.

We have examined a specimen of extract of malt prepared by The Distillers' Company, Limited, Edinburgh, and we can say that as regards its diastasic power, it is greater than what is usually considered to be the standard of a good extract. It has a very delicate flavour which would make it appreciated and tolerated by the weakest stomach. We can readily understand how it is possible for the Distillers' Company to produce so excellent an extract. The nature of their business as whisky distillers requires that the malt should be of the finest quality, and we know that special testing of the malt before use is absolutely necessary with them. Starting with a good-flavoured malt, the extract which can be obtained from such an article is the best that can possibly be made.

From the Gazette's Special Pathologist.

NOTICES.

W. A. E. W., RUGBY.—Klebs-Löffler bacilli are present on the blood serum after incubation.

C., SAXMUNDHAM.—Tubercle bacilli are present in this sputum in very large numbers.

J. A. B., BROMSGROVE, "L.G."—No tubercle bacilli could be found in this sputum.

J. A. B., BROMSGROVE, "M.W."—Tubercle bacilli are present in this sputum in fair numbers, probably rather more than at the last examination.

PATHOLOGIST.

Sport.

Association Football.

GUY'S v. CHARING CROSS.

INTER-HOSPITAL CUP.

The first round for the Cup was played at Honor Oak Park on Friday, and resulted in a win for Guy's by seven goals to nil.

The game was of the poorest description, our team showing an utter lack of combination. From the kick-off Guy's had all the game, but played without any "go," this being especially noticeable during the first ten minutes. Humphry scored the first goal from a distance, and then play was in our half for a time. McAlpin when attempting to clear, slipped and so injured his knee that he was forced to retire, although making a plucky effort to continue, consequently Guy's played one short for the rest of the game. Guy's then assumed the offensive, and after a series of shots placed gently into the goal-keeper's hands, Hall scored a good goal from half. Thomas had to clear on several occasions, but only had one difficult shot.

On restarting our left wing went away with a rush, and the ball was immediately put through from a good centre by Humphry. Charing Cross played up a little more, but could not break through our defence, Robson and Hall tackling and kicking in good style. Our forwards again shot gently at the goal-keeper, but after a fumble Hughes headed through. Charing Cross conceded many corners, but our men seemed totally incapable of improving on them. Towards the end of the game we improved a little, and several hot shots were put in, Hughes scoring with a really good one. Longhurst became conspicuous by several lengthy dribbles, Wiltshire scoring from one, and that player again beat the goal-keeper by a splendid shot from the right, the whistle sounding for time shortly after. Team:—

GUY'S.—A. R. Thomas (goal); E. A. Longhurst, W. R. Robson (backs); L. O. Card, J. McAlpin, R. W. B. Hall (half-backs); P. S. Mandy, H. K. Lacey, H. P. Wiltshire, A. Hughes, L. Humphry (captain) (forwards).

REMARKS.—The match was very disappointing, the team, as a whole, failing to show good form at any period of the game. Of the defence Hall and Robson were the pick, the latter playing much better than usual. The forwards were particularly weak, Hughes playing the best game. Wiltshire worked hard, but was too selfish, and left his position far too much. Humphry was quite off colour, rarely centreing well. The shooting was fearful, fairly straight, but very feeble, only two or three shots having any sting in them,

GUY'S 2ND XI. v. EVERSLEIGH B.

Played at Balham on Saturday, January 22nd. Commencing with wind in our favour, but minus a centre-forward, the first eight minutes were spent in kicking out

and throwing in alternately, when Cole might have made better use of his opportunities. Play then settling into mid-field, Eversleigh pressed, but Turner and Smith cleared well. Ash turning up within ten minutes of half-time, Guy's made a brilliant rush ending in a good and successful shot by Witcomb. This was followed by another successful rush, Hughes scoring our second goal.

In the second half Guy's outplayed their opponents, the combination of our forwards being better than it has ever been. Hughes was in good form, his passes were neat, and he used his weight well, scoring two more goals. Ash also was in better form than he has been this season, scoring our fifth goal from a good long shot, and making Guy's the winners by five goals to nil. Team :—

Guy's.—F. M. V. Smith (goal) : J. Matthews and F. J. Turner (backs) ; T. G. Miles, D. G. Greenfield, P. P. Cole (half-backs) ; P. W L. Camps, W. O. Roberts, J. Ash, L. J. Hughes, C. Witcomb (forwards).

GUY'S 2nd XI. v. OLD CRANLEIGHAN'S 2nd XI.

Played at Catford Bridge on Saturday, January 29th. Guy's kicked off against a strong wind, and for the first few minutes play was very even. Quite early in the game we had the misfortune to lose D. G. Greenfield, who, in stopping a rush by the opposing forwards, fell, and had to retire with a fractured clavicle. In spite of this, Guy's won an easy game by three goals to nil. Camps scored the first goal after a good run down, Miles scored the second, and the third was put through by Witcomb from a corner kick. Roberts at inside right, and Miles at right half played a very good game. Team :—

Guy's.—F. M. V. Smith (goal) ; H. Tipping and F. J. Turner (backs) ; T. G. Miles, D. G. Greenfield, L. G. Nash (half-backs) ; P. W. L. Camps, W. O. Roberts, P. A. Peall, L. J. Hughes, C. Witcomb (forwards).

Rugby Football.

GUY'S v. ROSSLYN PARK.

A meeting between the above teams took place at Honor Oak on January 22nd, the result being a goal to a try in favour of the visitors. Sime was very much missed at three-quarter, Trail and Thomas also were absent. Rosslyn Park won the toss and played down the hill with a big wind behind them. The play was of a very even nature, neither side gaining any advantage till well on in the first half. From a line out one of their forwards who was unmarked, got the ball, and after some passing, a try was scored in a good position, the major points being added. This was all the score at half-time. In the second half Guy's had all the best of the game, the forwards playing very well. Mullins scored a try which was unconverted. Try as they would, Guy's could not score again, in spite of numerous penalty kicks. Wetherell and Jackson made strenuous efforts to get over the line, but were very feebly backed up by the three-quarters. The game thus ended in favour of Rosslyn Park by five points to three. Team :—

Guy's.—A. C. Ransford (back) ; F. E. Walker, C. T. Pye-Smith, G. Evans, F. J. Pierce (three-quarter backs) ; F. C. Wetherell, F. D. S. Jackson (half-backs) ; R. C. Mullins, F. G. Gibson, A. A. Smith, H. A. Cutler, G. Shorland, A. H. Wall, M. D. Wood, H. V. Bagshawe (forwards).

GUY'S v. CATFORD BRIDGE.

In this match, played at Catford Bridge on January 29th, the hospital avenged the previous defeat sustained on their own ground last November. The result was satisfactory in view of the recent successes of the home club and the comparative failure of the hospital in their last few fixtures. The score, however, should have been larger, as several fine opportunities were thrown away. In the first half Guy's had considerably the best of matters, and Thomas and Jackson were within an ace of scoring, both failing through lack of support. Catford were never very dangerous, and the teams crossed over with nothing scored.

In the second half Sime scored after a fine dash, and Walker converted, the points coming about ten minutes from the restart. The hospital forwards then tired, and Catford Bridge attacked time after time, and probably would have scored but for the mistakes of their backs. Towards the close Guy's again woke up, and Wetherell appeared to get over, but the referee disallowed the try, and nothing further being registered by either side, the hospital won by one goal to nil.

This result should be an encouragement to our men, who have lately been very much out of form. We believe that the secret of our success lies in the efforts made to get fit by most members of the team during the foregoing week, and hope that they will stick to their work of preparation in a proper and hopeful spirit, in which case we shall rely on them with perfect confidenee to win back the cup which St. Thomas's have held for so many years. Team :—

Guy's.—A. C. Ransford (goal) ; F. E. Walker, F. W. Sime, G. Evans, J. H. Wilks (backs) ; F. C. Wetherell, F. D. S. Jackson (half-backs) ; R. C. Mullins, F. G. Gibson, A. A. Smith, T. P. Thomas, F. R. Featherstone, H. A. Cutler, G. Shorland, H. V. Bagshawe (forwards).

GUY'S 2nd XV. v. LONDON & WESTMINSTER BANK.

This match was played at Champion Hill on Saturday, January 22nd, and resulted in a win for the Bank by one goal, four tries to one try. Guy's started two short, but Brydone turned up about the middle of the first half. The Bank playing downhill, and having the wind at their backs, soon got the upper hand. Their forwards were much the heavier, and gave the backs plenty of opportunities. The game was mostly in Guy's territory, but occasionally, by good runs by Shannon, Wilks and Morgan, the home team were put on the defence. The Bank crossed Guy's line five times during the first half, one place kick only being successful.

In the second half, having advantage of the hill and wind, Guy's made a much better show. The game was for the greater part kept in the Bank's half. Guy's were only able to score once, Wilks obtained the try, but Morgan's kick did not add to the score. This was the only try scored in the second half. For Guy's, of the forwards, perhaps Featherstone, Lawry and Watson were the pick. Wilks, Shannon and Morgan played well, but there was little combination between the backs. Jupp tackled well. Team:—

GUY'S.—O. Jupp (back); J. T. Wilks, T. Morgan, J. T. Hicks, —. Shannon (three-quarter backs); J. N. Brydone, W. Jarvis (half-backs); F. R. Featherstone, R. C. Lawry, C. F. Watson, P. T. Manson, K. Nunn, K. V. Trubshaw, A. W. Gater (forwards).

GUY'S 2ND XV. v. BECKENHAM.

This match took place at Beckenham on Wednesday, January 26th. Guy's were well represented and won by two goals and two tries to nil. Wilks and Shannon scored during the first half, Jackson converting the latter's try.

In the second half Wilks scored again, and Jackson also gained a try. Jackson took both kicks, but only succeeded in landing one goal. Guy's forwards were much superior to Beckenham's. Featherstone played a really good game. Brydone played well at half; he tackles and runs well, but his passing is not quite up to the mark. Of the three-quarters, Jackson and Wilks were the pick. Shannon made some good runs and should turn out a very useful man. Ransford, at back, did all that was required of him.

It would not be out of place here to remind the 2nd team that we meet St. Thomas' 2nd in the second round for the Surrey cup on February 26th. It is to be hoped that all the men will get into as fit a condition as possible. Those who cannot afford time for more than a couple of runs a week would do well to turn up at the gymnasium occasionally. Team:—

GUY'S.—A. C. Ransford (back); C. T. Hilton, G. S. Shannon, J. H. Wilks, F. D. S. Jackson (three-quarter backs); J. N. Brydone and H. A. Cutler (half-backs); M. D. Woods, G. Shorland, A. H. Wall, F. R. Featherstone, C. F. Watson, R. C. Lawry, P. T. Manson, D. P. Watson (forwards).

Key to Case for Diagnosis on page 50.

At the autopsy it was found that a small gastric ulcer had perforated, had given rise to a sub-diaphragmatic abscess in front and over the left lobe of the liver; the diaphragm was perforated, and the lower two-thirds of the left lower lobe of the lung was in a gangrenous condition. The lung was adherent to the diaphragm, and the liver to the abdominal wall.

NOTE.—Patient brought up very little sputum; breath not at all foul from first to last.

Appointments.

CIVIL.

FALWASSER, A. T., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Ramsgate Seamen's Infirmary and General Hospital, and Visiting Surgeon to the Ramsgate and St. Lawrence Royal Dispensary.

IBOTSON, E. C. B., L.S.A., has been appointed Assistant Medical Officer to the Grove Hall Asylum, Bow, E.

JONES, CHAS. STURGES, M.R.C.S. Eng., L.S.A., has been re-appointed Medical Officer of Health for Chichester.

WEBBER, H. W., M.D., M.S. Lond., has been appointed Assistant Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

MILITARY.

MAY, W. A., Surgeon-Lieut.-Colonel, is promoted to be Brigade-Surgeon-Lieut.-Colonel, *vice* A. L. Brown, retired.

MARDER, E. S., Surgeon-Captain, has been ordered to Egypt for duty at the front.

DUNDAS, Dr. G. MORDAUNT, is appointed Surgeon-Lieut. in the 1st Norfolk Artillery (Western Division Royal Artillery).

HOOD, Dr. DONALD W. C., of 43, Green Street, Park Lane, bas been selected by Lord Salisbury to succeed the late Dr. Wadham, as examining physician to the Queen's foreign and home service messengers.

Births.

HEARNDEN.—On January 28th, at Sutton, Surrey, the wife of Ernest Morgan Hearnden, M.R.C.S., L.R.C.P. Lond., L.S.A., of a daughter.

SMYTH.—On January 3rd, at Castleacre, Adelaide Road, Brockley, S.E., the wife of F. Sydney Smyth, F.R.C.S., of a son.

Marriage.

BRERETON—LAMB.—On January 5th, at St. James's, Birkdale, by the Rev. R. Stephenson, Vicar, assisted by the Rev. H. F. Flynn, Frederick Sadleir Brereton, Army Medical Staff, youngest son of F. S. Brereton, Esq., of Catford, Kent, to Ethel Mary Lamb, only daughter of W. J. Lamb, Esq., of Birkdale.

Deaths.

PARE.—On December 28th, 1897, at 25, Buckland Crescent, N.W., of influenza and pneumonia, Margaret Edmonson Pare, the dearly loved wife of John William Pare, M.D., C.M. Edin., L.D.S.

STEELE-PERKINS.—On January 28th, at Mount Radford, Exeter, John Steele-Perkins, F.R.C.S., aged 90.

ED.—F. E. W.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold, will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

February.

Sat. 19.—Mr. Davies-Colley's take-in; Drs. F. W. Brook and D. J. Munro; Cl., G. E. Richmond.
1.15 p.m., Clinical lecture by Dr. Goodhart.
G.H.R.F.C., I., H.A.C., home.
II., Old Charltonians, away.
G.H.A.F.C., I., Eastbourne, away.
II., *Crouch End Vampires*, home.
G.H.P.P.S. Pathological Evening.

Wed. 23.—Mr. Lucas's take-in; Drs. H. L. Eason and L. H. McGavin; Cl., P. Turner.
G.H.R.F.C., II., Merchant Taylors' School, home.
1.30 p.m., Clinical lecture by Mr. Golding-Bird.

Thur. 24.—G.H.C.U., Address by Rev. E. Grose Hodge.

Sat. 26.—1.15 p.m., Clinical lecture by Dr. Goodhart.
G.H.R.F.C., I., R.I.E.C., away.
II., Richmond, away.
G.H.A.F.C., I., Reigate, home.

March.

Wed. 2.—Mr. Golding Bird's take-in; Drs. A. H. Carter and J. T. Dunston; Cl., C. R. Hodgson.
1.30 p.m., Clinical lecture by Mr. Golding-Bird.
G.H.A.F.C., I., Mr. Kirkpatrick's XI., home.

Sat. 5.—1.15 p.m. Clinical lecture by Dr. Goodhart.
G.H.R.F.C., I., Richmond, away.
II., Kensington, away.
G.H.A.F.C., I., Beckenham, away.
II., St. Bart.'s, away.

Guy's Hospital Gazette,

FEBRUARY 19, 1898.

The Great Plagues of History.

By M. F. CARSON, M.D. Griffin, Ga., U.S.A.

AT first view it may appear a matter for wonder that there should be so widespread an interest in everything pertaining to the origin and dissemination of disease throughout the race.

Daily observation, however, reveals the fact that such interest is in reality well-nigh universal. Nothing, perhaps, so quickly engages the attention of the public as the account of some new disease, or the discovery of a new remedy vaunted as a panacea for human ailment, or the history of some great epidemic which has decimated, time and again, the populations of the nations of the past. We do not need to seek far in order to discover the true causes of this anxious attitude of the public mind. It is at once obvious that the universal law of death must ever lend a sombre interest to all infirmities of the human organism, and hence it is that all men—the wise and learned, as well as the ignorant and narrow-minded—seize with avidity upon every shadow which gives the least promise of some delay in the inevitable termination of life.

The object of the present article is to recall the more striking features of the great pestilences of the past ages; to note the conditions of life under which they appeared; and then to refer to the success which has attended, and may yet attend, the efforts towards banishing such destructive maladies from society by an improved sanitation. It is of decided importance to understand what relation society sustains to the diminution of not only the number, but also the malignancy of those deadly disorders which have so often afflicted mankind.

The great Bubonic plague is now almost a thing of the past. It will, therefore, best illustrate the object in view by showing the influence which our improved state of society has exerted upon one of the deadliest of all the scourges which have made their appearance since the beginning of time. Then, again, the history of the plague is in itself a record of almost unparalleled horrors, and thus presents an absorbing interest to any reader. The story of its outbreaks reads like the thrilling tales of the old wars, and the scene of its

visitations presented more ruins, left behind more victims, than could be met with on the bloodiest battle-fields the world has ever known.

In reviewing the history of this fatal scourge, I will consider it under the two-fold division of—

First.—THE SPECIAL VISITATIONS OF THE PLAGUE MENTIONED IN HISTORY; and

Second.—THE CHARACTERISTICS OF THE DISEASE AS A DISTINCT MALADY,

glancing under the former at some of the most noted occurrences in the description of individual scourges, together with the time and manner of the pestilential outbreak; and under the latter, at first the causes of the plague; second, its abnormal appearances both before and after death; third, its symptoms; and fourth, its treatment, together with the probabilities of success in the direction of preventive measures.

First.—THE HISTORICAL VISITATIONS OF THE PLAGUE.

The plague, simple or malignant, is undoubtedly one of the most ancient maladies to which flesh is heir. It has shown a tendency to linger for a varying period of time in some special portions of the globe, the rest of the world being free in the meanwhile from its ravages. But it may be stated in general terms that the periodic return of the plague has occasioned the most destructive calamities in every continent except that of America, for a time corresponding with the entire history of the human race. It has been known by as many names as the variations in its type would naturally suggest, but these have only been variations of one great original disease, and each of these apparent changes has only represented a difference in the degree of malignancy caused by accidental surroundings. But whether we term the scourge before us the plague, or pest, or pestilence, we mean the same fell malady which has dealt out death with such an unsparing hand throughout almost every nation, from the Lybian deserts to the shores of the Caspian, and from the Irish Channel to the frontiers of the Chinese Empire.

In dealing with this disease we must remember that we are not considering a subject which belongs exclusively to the past. Although bereft of much of its ancient terror, it yet shows itself by no means rarely, and at times with its characteristic malignancy, in Russia, Egypt, India, China, and Mesopotamia.

The earliest history of the bubonic plague is veiled in obscurity. It is useless to attempt to follow it in its dim traditional wanderings in those remote times before systematic observations were regarded of any importance, or suspected of being of such inestimable value to posterity. It has been claimed, indeed, that we have no direct record earlier than the third century before Christ of any distinct pestilential outbreak. But if we accept, as indeed we must, the Mosaic account of some of the Egyptian plagues, which manifested the distinctive characteristic of afflicting both man and beast with most loathsome sores, we are carried back to the very dawn of history in our efforts to trace the beginnings of this ravaging pestilence. The record of these earlier plagues seems to point to their identity with those later bubonic plagues, which manifested the same malignant fatality in after ages, not only on the banks of the Nile, but in many other parts of the globe.

But to those who think that so remote an antiquity is entirely too fanciful, or that those old Mosaic accounts are not sufficiently explicit, satisfactory evidence can be presented of an age that is at least respectable by referring them to those later records whose historic accuracy of description and explicitness of detail are wholly beyond dispute.

Thus, during the reign of Trajan, the physician, Rufus, of Ephesus, refers to the writings of Dionysius, who lived in the third century before Christ, and mentions the fact that these writings contain a description of an epidemic malady of pestilential buboes, which appeared in his day in Lybia, Egypt, and in Syria.

Rufus, who appears to have been one of the most noted physicians of his time, regarded the epidemic recorded by Dionysius, as identical with the pestilence which ravaged these same countries during his own lifetime.

The historian, Livy, records a similar plague which destroyed more than a million people in Africa alone.

The great antiquity of the plague in Egypt and in other portions of Africa would seem to be conclusively established by the frequent mention of such pestilences in so many of the most ancient records. In fact, Africa was looked upon for ages as its natural home, and it was not until the sixth century of the Christian era, that the bubonic plague, in the reign of Justinian, first crossed the Mediterranean and made its appearance upon European soil. Although confined to Asia and Africa for such a vast period of time, when it did reach Europe, it took up its permanent abode.

From this period of European invasion begins that steady march of the pestilence, which moved forward with varying malignancy, it is true, but with a steady persistency for a period extending over eleven centuries. Nothing could stop or even check its fatal progress. Then, too, it showed a capriciousness in the times and places of its outbreaks, which seemed to defy every effort to master its dark and mysterious nature. If apparently checked in southern countries, after raging during an entire winter, it would at once be supposed that such a check resulted from the increasing heat and dryness of the summer months, but alas for such a theory. Its term of life would be short indeed, since the awful scourge would suddenly reappear in the nations of the north, seemingly warmed into new life and power by that very heat which had just been supposed to have given it its death-blow in another part of the world.

No law could be made to control it, just as no boundaries could be found to limit it. Wherever man with his poverty and its attendant uncleanliness was found; wherever war with its fields of blood and its thousands of decaying dead, poured forth its awful horrors and portentous crimes over the face of the earth, sweeping like a besom of destruction over the fairest creations of man; there the noisome pestilence would

follow, transforming that which was already a purgatory into such a hell as only a Dante could picture in his awful inferno, while portraying the hideous ravings of the damned.

The sixth century was one succession of almost unbroken horrors. We find the plague in the early part of that century beginning in Egypt, and thence passing into Constantinople, whence it finally reached the Italian Peninsula.

The outbreaks during this time had a most disastrous influence upon the declining fortunes of the Roman Empire. Perhaps no other cause so temporary in its nature contributed so effectually toward the overthrow of that mighty fabric, which had already begun to crumble away. Threatened on every hand by innumerable foes, shaken to the foundations by the countless irruptions from the north, the imperial city of the seven hills, the haughty mistress of a vanquished world, was already learning to bow her lofty head. It needed but little to complete her final ruin.

The last fatal blow fell with crushing force, and that empire which would yield to no mere human strength, which the power of a world could not shake, which was drunk with the blood of a hundred nations, fell at last beneath the stroke from the hand of the Omnipotent God. The pestilence appeared in the midst of other calamities and with it a complete dismemberment of society; a disunion of every bond; confusion and terror; sufferings and death; until the whole of Southern Italy was well-nigh depopulated and fell an easy prey to the hordes of Lombardy.

The chief outbreaks during this century took place in Constantinople in the years 542 and 543 and again in 565; in Liguria in 571; while in 590 it made its appearance in Rome itself during the pontificate of Gregory the Great. The death-rate in some of these visitations was almost fabulous. During its outbreak in 543 in Constantinople ten thousand persons are said to have perished in a single day. In fact there was scarcely a year towards the latter part of the sixth century which could be said to be entirely free from this fearful pest. It was preeminently a century of terror and gloom. It may well be called the Dark Century of the Age of Night in human history.

To increase the direful gloom and dread despair attendant upon such an unbroken succession of pestilential horrors, we are informed that the plagues were accompanied by the most startling natural phenomena. Volcanic eruptions, tremendous cyclones, destructive earthquakes, and more portentous than all else, fugitive comets with gleaming tails were seen shooting athwart the sky, or hovering like gigantic monsters of doom over a fated world.

We can well believe that which history records as a fact that the impressions made upon the survivors by these scenes of awful death were so profoundly despairing in their nature as to give rise to the general belief that the end of the world was at hand.

Passing onward from century to century we find during the succeeding ages many visitations recorded, varying in type, it is true, but ever the same in the dark mysteriousness of its fatal power.

With this hasty reference to the appearance and re-appearance of the plague during these earlier periods, we will now pass abruptly from the sixth to the fourteenth century, when we will find ourselves confronted with the same old enemy, but wearing a new and still more hideous form.

During this century, the fourteenth of our era, the pestilence reached its culmination in deadly malignancy, and led to the wildest anarchy and a complete abolition of all social law and order. It was during this period that the so-called Black Death made its first appearance, and began its awful work among the nations of Europe, rendering loathsome and hideous beyond description her most beautiful cities and converting into one vast charnel house her richest and fairest realms. Greece, Italy, Sicily, France, The Netherlands, Germany, England, and even the Scandinavian Countries of the North, all were alike afflicted with this fatal pest, which was, as we shall soon see, but another form of the old plague which had proved so deadly in the past. We can conceive somewhat of the awful character of this visitation and understand its unique position in the history of human disaster, when we learn that its devastations overturned all social order, broke down the ties of kindred and of home, subverted municipal law, and so completely depopulated the different nations of Europe that hundreds of cities reverted to the Crown through the death of every legal claimant, and many a princely title and even kingly dynasty became for ever extinct.

The inimitable Bocaccio, and the brilliant Petrach have sketched, in the liveliest manner, many remarkable scenes connected with this series of pestilential horrors in some of the Italian cities. It is utterly impossible for us to-day to conceive in any adequate manner of the fatal influence, which so much despair and suffering and death exerted in those awful times, upon the moral nature of man. Details, too loathsome for utterance, scenes too revolting for human belief, are recorded by these old writers of the past, who were themselves eyewitnesses of the way in which purity was forgotten, every tie of brotherhood trampled in the dust, and even the Deity Himself turned into a universal scoff, while on every hand were heard continuous revilings of divine mercy and love. When we read of husbands forsaking the wives of their youth, the mother fleeing wildly from the contaminating touch of the child to whom she had given birth, the lover shunning in terror the idol of his heart, our minds reel beneath the effort to grasp the hideousness of the picture, and our senses refuse to credit the possibility of such a distortion of human mercy and love. We would fain believe that we are listening to the wandering delusion of a mind weighted down by some hideous nightmare of gloom, or the maniacal ravings of a brain consuming itself within the horrid and unearthly phantasms of its own creation, and

gloating with diabolical malignity over the ruin and chaos, the blackness and crime, which its satanic delusions have turned loose upon this fairest realm of man, to pollute into an angel of darkness, that beautiful and priceless soul created in the image of God.

In moralizing over the conditions of human society in the midst of such visitations, our pride is humbled, and our confidence in human perfection in the midst of extraordinary trial and suffering, is for ever removed. We see that there are some evils too great to be borne; so great, indeed, as to paralyse completely the heart of human society, and to crush in a moment through every barrier erected by centuries of progressive civilization; evils whose magnitude confounds the brain, until reason totters from her throne, and human affection is turned back in its course, and even an Eden itself would be changed into a veritable hell.

A continuation of this record, would be but a continued delineation of the horrors which I have already attempted to describe; and yet the great plague of Naples in 1656, and the great London plague of 1664 and 1665, are at least worthy of a passing notice.

In the last-mentioned outbreak one hundred thousand men, and in the former more than three hundred thousand fell victims to the dreaded pestilence. The London plague was accompanied by social disorders even wilder in their character, and by a moral depravity even more revolting in its aspects than were manifested in any of the great plagues of the middle ages. But with the exception that the dark features should be represented more hideous still, and the revolting details still more revolting, the same description will serve for this occurrence, which has portrayed, although slightly, the horrors and death attendant upon previous outbreaks of the same dread disease. Therefore, with the bare statement that even until the last decade in our own century, the plague has continued to appear at times in Egypt, Persia, India, and even in Russia, we will pass on to the consideration of the second division of our subject.

(To be continued.)

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Circulatory System.

Mary 18, 39, 45, 49. Chlorosis.
Philip 19. Infective endocarditis.
31, 34. Aortic stenosis and regurgitation.
Stephen 2. Aneurysm first part of aorta. Aortic regurgitation.
4. Ascites. Enlarged liver and spleen. Cirrhosis.
13. Aortic stenosis and regurgitation.
26, 38. Mitral regurgitation.

Nervous System.

Mary 6. Hysteria.
8. Climacteric neurosis.
10. Optic atrophy and choroiditis.
22. Chorea. Endocarditis.
28. Cerebral tumour. Consecutive optic atrophy.
30, 48. Myelitis.
Philip 7, 30. Chorea.
20. Myelitis.
Stephen 11. Cerebral tumour. Optic atrophy.
14. Carcinoma of pylorus. Pylorectomy.
25. Alcoholic neuritis.
32. Chorea.
35. Sciatica.
36. Cerebral hæmorrhage.

Alimentary System and Abdomen.

Mary 7. Gastric ulcer. Moveable kidney.
16, 24. Dyspepsia.
17. Ascites. Cirrhosis of liver.
20. Hæmaturia. Enlarged liver. ? Cirrhosis. Child æt. 10.
21. Gastric ulcer.
23. Typhoid fever.
29. Membranous colitis.
32. ? Ovarian tumour.
35. Abdominal tumour. Carcinoma.
50. Sarcoma of pelvis.
Philip 3. Abdominal tumour.
5, 15. Typhoid fever.
32. Gastric ulcer.
33. Appendicitis.
Stephen 33. Appendicitis.
39, 40. Typhoid fever.

Genito-Urinary System.

Mary 11. Acute tubal nephritis.
27. Chronic nephritis and glycosuria.
Philip 4. Chronic nephritis. Left optic atrophy.
6, 17. Chronic tubal nephritis. Albuminuric retinitis.
25. Acute nephritis.
27. Chronic nephritis.
29. Chronic nephritis. Retinal hæmorrhages.
Stephen 15. Diabetes mellitus.
20. Chronic intestinal nephritis.
23. Chronic nephritis. Aortic regurgitation.
28. Acute nephritis.

Respiratory System.

Mary 8. Empyema.
12, 44. Phthisis.
14, 15. Lobar pneumonia.
19. Pleurisy.
Philip 2. Fibroid lung.
8, 12, 18. Pleuritic effusion.
9, 11. Phthisis.
13, 37. Syphilitic stenosis of larynx. Tracheotomy.

Philip 16. Chronic bronchitis.
23. Laryngeal obstruction (tracheotomy).
28. Bronchitis and emphysema.
35. Broncho-pneumonia.
36. Cirrhosis of lung.
Stephen 5. Bronchitis and emphysema.
21, 30. Phthisis.

Miscellaneous

Mary 1, 26. Rheumatoid arthritis.
2. Psoriasis.
4. Acute rheumatism.
25, 42. Exophthalmic goître.
Philip 10, 22. Psoriasis.
21, 39. Rheumatism.
33. Myxœdema.
Stephen 9. Erythema. Polyarthritis. Rheumatism.
22. Gout.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman 1. Vesical calculus.
3. Incarcerated hernia. Reduced under A.C.E.
4. ? Gummatous tumour of fibula.
9. Fibroid prepatellar bursa. Excised.
12. ? Adenoma of testis. ? Tuberculosis.
15. ? Hæmatoma of adductor longus.
17. Femoral incarcerated hernia. Reduced under A.C.E.
18. Tuberculous carpus. Æt. 59.
Charity 6. Painful contracting scar in groin.
7. Strangulated femoral hernia.
11. Carcinoma mammæ (right). Left breast amputated in 1879 by Mr. Bryant.
13. Tuberculous knee. Æt. 68.
17 (Now in Clinical P.R.) Subserous fibroid. Abdominal hysterectomy.
19. Syphilitic occlusion of nares.
Astley Cooper 16. Fractured femur.
23. Fractured femur.

Cases under Mr. Davies-Colley.

Luke 7. Tuberculous knee.
11. Vesical calculi removed formerly. Recurrent hæmaturia. No stone or sounding. ? Epithelioma vesicæ.
20. Morbus coxæ.
Lydia 6. Bullet wound in chest.
18. Abdominal tumour. Distended bladder. Due to retroversion of lesion.
23. Spina bifida. Meningocele.
Cornelius 9. Blow over kidney. Hæmaturia.
15. Crushed legs. Double amputation.
20. Bullet wounds in chest and forehead.

Cases under Mr. Lucas.

Job 2. Malunion of tibia.
9. Recurrent appendicitis.
17. Prostatic retention. Æt. 66.
23. Tuberculous elbow. Excised.
Lydia 10. Contracted knee. Amputation through thigh.
11. Multiple cystic disease of breasts.
15. Gall-stones. Cholecystotomy.
Charity 4. Rigidity of both hips and neck muscles. ? Functional.

Cases under Mr. Golding-Bird.

Lazarus 2. Prostatic calculi.
6. Bronchocele with local adenomata. Removal of isthmus and one lobe.
10. ? Antral empyema.
15. Enlarged prostate, æt. 74. ? Malignant.
21. Undescended testis. Castration.
21. Renal hæmaturia. ? Renal epistaxis. ? Villous papilloma.
22. Chronic urinary extravasation. Scroto-perineal sinus.
Martha 4. Strangulated umbilical hernia.
5. Strangulated umbilical hernia.
16. Prolapsed rectum.
17. Membranous colitis.

Cases under Mr. Jacobson.

Naaman 22. Osteo-arthritis of knees. Exploratory incision.
Samaritan Stretcher. Submaxillary abscess.

Cases under Mr. Fripp (for Mr. Symonds).

Martha 15. Recurrent carcinoma mammæ.
Luke 17. Ununited fracture of olecranon.

Cases under Mr. Lane.

Job 12. Neuro-fibroma of skin of back.
13. Ununited fractured of tibia. Screwed into position.
15. Lympho-sarcoma of neck. Exploratory incision. Inoperable.

Cases under Mr. Dunn.

Martha 10. Necrosis of skull. Sequestrotomy.
14. Tuberculous glands in neck and axilla.

"Clinical."

John 4. Growth of extending colon. Double resection of gut. Colotomy.
5. Abscess of abdominal wall. ? Growth of transverse colon.
6. Aortic stenosis. Mitral stenosis and regurgitation. Tricuspid regurgitation.
7, 10. Appendicitis.
8. Cirrhosis of liver. ? Syphilitic.

JOHN	9.	Appendicitis. Operation.
	11.	Angina pectoris. Bronchitis.
	12.	Diabetes mellitus.
	13.	Tricuspid regurgitation. Mitral stenosis and regurgitation.
	16.	Pneumonia.
MIRIAM	18.	Phthisis. Tubercular pleurisy.
	19, 21.	Typhoid fever.
	20.	Fibroid phthisis. Tricuspid regurgitation. General anasarca.
	22.	Pleuritic effusion.
	23.	Multiple sarcomata.
	24.	Congenital heart disease. ? Patent ductus arteriosus.
	25.	Pericarditis.
	26.	Chorea.
	28.	Broncho-pneumonia.
	29.	Double pneumonia.
	30.	Mitral stenosis and regurgitation. Pleuritic effusion.
	31.	Double aortic and mitral disease.
	32.	Pneumonia.
COT	33, 35.	Broncho-pneumonia.
	36.	Intussusception.
	37.	Laryngeal obstruction. Tracheotomy.

Anæsthetics.

A Paper read before the Dental Society on January 11th, by Mr. A. OSBORNE BELL.

Mr. M. F. Hopson in the chair.

MR. CHAIRMAN AND GENTLEMEN,—In offering to read a paper before this Society, and especially on Anæsthetics and methods of administration, I feel I am undertaking no light task, for many papers have been read on this subject of far greater value than anything I can hope to lay before you.

In the first place, I propose to divide anæsthetics into two classes:—

(I.) Local.
(II.) General.

(I.) Amongst the local, we have—

(i.) Ether spray.
(ii.) Rhigolene.
(iii.) Bisulphide of carbon.
(iv.) Chloride of methyl.
(v.) Chloride of ethyl.
(vi.) Coryl.
(vii.) Aponia.
(viii.) Eucaine.
(ix.) Cocaine.
(x.) Cataphoresis.

And many other preparations which depend with very few exceptions upon cocaine to produce their effect; other constituents being carbolic acid, chloral hydrate, alcohol and various aromatic volatile oils, which are in themselves local anæsthetics, to a slight extent, and act by depressing the sensory nerve endings directly.

(II.) The general anæsthetics are—

(i.) Ether.
(ii.) Chloroform.
(iii.) A mixture of ether, chloroform and alcohol, known as A.C.E.
(iv.) Nitrous oxide.
(v.) Nitrous oxide and oxygen.
(vi.) Nitrous oxide and ether.

I shall now proceed to discuss briefly a few of these anæsthetics, as time will not permit me to go into all of them, nor do I think it necessary to do so.

Firstly, we will take the local ones, that is, those which are applied to the part, either as a paint or injected hypodermically.

The Ether Spray was introduced by Sir Benjamin Ward Richardson; it is anhydrous ether with hydrate of amyl, equal parts, atomised by forcing a current of air into the bottle containing it. The anæsthesia is due to rapid evaporation, paralysing the sensory nerve terminals; the effect is very superficial and transient, there is usually pain on recovery of sensation, and sometimes sloughing of the parts.

Rhigolene is a product of the distillation of petroleum, and is used in the same way as the ether spray.

Bisulphide of carbon is also used in a similar manner, though not often, on account of its objectionable odour.

Chloride of methyl is applied to the part in drops. Severe injury to the vitality of the tissues often follows its application, hence it is seldom used.

Chloride of ethyl and coryl are probably mixtures or intermediary forms of ether, chloroform, and alcohol. They are used in the form of a spray.

Eucaine is a synthetic form of cocaine, and is said to have no bad after effects, but from what I can learn I find that great swelling of the face and neck is not an uncommon occurrence after a few hours, or even the following day.

Hydrochlorate of cocaine is one which I wish to describe more fully, as patients will often ask for it when they come to you, that is, in the future when you have qualified as dental surgeons. It is easily soluble in water. Your solutions should *always* be freshly made. Its action is on the sensory nerve endings.

Physiological action.—Heart—At first the pulse is increased in frequency and the blood pressure is higher, followed by weakened action of heart, and lowered blood pressure.

Respiration is increased, irregular and shallow, and may be followed by asphyxial symptoms.

Nervous senses.—The peripheral nerves of sense become anæsthetised, and you may get convulsions, epileptiform seizures, and paralysis, lasting for hours or even days, dryness of mouth, and fauces and vomiting. Mental symptoms are garrulity, followed by great anxiety and feelings of unaccountable distress. Its uses in dental surgery are for:—

(i.) Extractions.
(ii.) Adjusting clamps and separators.
(iii.) Applying ligatures.

(iv.) Removal of tartar (especially in cases of pyrrhœa alveolaris).
(v.) Trimming deep cervical margins.
(vi.) Sensitive and irritable palates, previous to taking impressions.
(vii.) Lancing and excising gum tissue.
(viii.) Relief of pain after extraction.
(ix.) Removing pulps in a living condition.
(x.) Sensitive dentine.

For extractions, the dose is a ½ to 1 gr. in 5 to 10 mm. of water. You should inject the fluid each side of the tooth to be extracted, making three punctures — one lingual and two labial—and then wait from five to ten minutes before operating.

It is, I believe, the best plan to have the cocaine put up in half-grain powders, as it is more quickly dissolved. The parts where you intend making the punctures should be painted over with a little of the solution to prevent the patient feeling the inserting of the needle.

A 20 per cent. solution will be found very useful for the other uses which I have mentioned, though some recommend solutions varying from 4 per cent. to 20 per cent.

Should your patient show any toxic symptoms, the treatment would be as follows:—Place the patient on his or her back, with the head lower than the rest of the body; loosen any tight clothing, give ʒi. of sal volatile, apply smelling salts to the nostrils, dash the face and chest with a cold wet towel, rub a little brandy on the tongue with your finger. Should these methods fail, artificial respiration must be commenced. After recovery, the patient must have complete rest and quietness, with stimulants if necessary.

Cataphoresis is the use of an electric current, to force a drug (usually cocaine) into the tissues to produce anæsthesia. It has other uses in dental surgery, but as it is only in its infancy at present, it is not advisable to speak either for or against it.

We have now to deal with the general anæsthetics, and as far as we are concerned nitrous oxide is undoubtedly the most important, consequently I shall deal with it first.

Nitrous oxide is prepared by heating ammonium nitrate to 460°; the liberated gas is then passed through solutions of Ferrous Sulphate and Potash to filter it, and is then collected over warm water. One pound of Salt (Ammonium Nitrate) yields thirty gallons of Nitrous Oxide.

I intend to give now a short account of (i.) the preparation of the apparatus, (ii.) the preparation of the patient, and (iii.) methods of administration.

(i.) *Preparation of the apparatus.*—An old proverb, "Everything that is worth doing is worth doing well," forcibly applies to the use of anæsthetics in dental practice, and it is only by careful attention to detail that success can be assured in every case.

The best apparatus, I believe, is similar to what is in use in our out-patient department, viz., the twin bottle stand with long tube to gas bag, to which the face-piece is closely connected. You should see that the whole of the apparatus is in thorough order, all joints and screws tested, and at least one full gas bottle on the stand; three or four face-pieces of different sizes are necessary, and the air cushions of the one to be used should be only moderately inflated, otherwise it may not fit as well as is desirable.

The following appliances should also be at hand:—mouth props of various sizes, a Mason's gag, a pair of tongue forceps, and instruments for performing tracheotomy; and lastly, everything should be ready before the patient enters the surgery.

(ii.) *Preparation of patient.*—Patients should come to you, if possible, between the hours of 11 a.m. and 2 p.m., as this is the best time for the administration of the anæsthetic. They should not have had anything to eat for three or four hours previously, otherwise vomiting is apt to occur. The patient should be placed in a sitting posture, with the chin slightly raised. All tight clothing, especially about the waist and neck, must be loosened, and dentures must be removed from the mouth.

Having decided what you are going to do, insert the gag in the most convenient place, seeing that it does not rest on any artificial crown works.

I think it is advisable to inform the patient what you intend doing, and if there is any possibility of the operation being unsuccessful, if it be successful you will get all the more credit; but if not, the patient, being warned previously, will not be greatly surprised or annoyed.

As a rule *don't* extract a large number of teeth or roots at the same time, and don't operate on both sides of the mouth the same visit, as mastication is rendered very painful for some time afterwards, whereas if one side of the mouth only is operated on, this condition is avoided.

(iii.) *Administration.*—The face-piece should be placed *very carefully* over the patient's nose and mouth, so that no air may be admitted with the nitrous oxide. This is a most important point to remember and one which requires a great deal of practice.

As soon as you see the patient breathing quietly, turn on the valve so as to admit the nitrous oxide, and continue giving it, all going well, until anæsthesia is produced. Should the patient cease breathing, the administration must be stopped and respiration restored immediately.

The signs of anæsthesia being complete are: Laryngeal stertor, muscular twitchings and loss of superficial reflexes; all these are not always present in the same patient or at the same administration. Laryngeal stertor and muscular twitchings are, I believe, the most frequent signs. In regard to these two, the latter is easily seen, but great care must be taken to distinguish a laryngeal or true stertor from the false stertor. A false stertor is produced by the relaxation of the muscles of the soft palate; the laryngeal stertor is caused by the vibration of the arytæno-epiglottidean folds of mucous membrane, which approach each other, and the base of the epiglottis gradually diminishing the respiratory aperture at this point. Experience is certainly the best way to learn to distinguish them.

Speaking of the conjunctival reflex and muscular twitchings, Dr. Silk says: "The conjunctival reflex is not, to my mind, very reliable either one way or the other, while on the other hand, exaggerated reflex movements of the limbs are, as we know, not at all uncommon under gas, and by no means indicate a return of consciousness."

The quantity of nitrous oxide necessary to produce anæsthesia is from three to five gallons, though some patients may require a little more. The induction period, that is from the application of the face-piece to its removal, is usually about 67 seconds.

The actual duration of anæsthesia is so variable that it is very difficult to give any average time, though some say it is about 30 seconds.

Physiological action.—The gas is diffused through the thin walls of the air cells in the lungs, and forms an unstable union with the albumins and albuminoids of the liquor sanguinis and the corpuscles displacing the oxygen. During narcosis there is less CO_2 given off, but subsequent to administration CO_2 is increased.

Respiration at first is slowed and shallow, then becomes stertorous, and finally ceases if administration is continued.

Circulation.—Heart beats quietly, full and regular, and in deep narcosis pulsations are slower. Blood pressure is lowered, except in the brain and cord. In asphyxia, the bulk of brain and cord is diminished, under nitrous oxide it is increased so much as to force out cerebro-spinal fluid; this fluid pressing on the nerve cells of both brain and cord, accounts for many of the nervous phenomena exhibited under nitrous oxide.

The heart continues to beat after respiration has ceased, therefore one should watch very carefully the respiratory movements.

Nervous system.—The senses are at first more acute; then follows anaglesia, quickly changing to anæsthesia, jactitations, rythmic tremors of hands and arms, muscular relaxation, abolition of superficial reflexes. The pupil as a rule dilates, but exceptions are sufficiently numerous to attract attention. Erotic symptoms are sometimes present, generally occurring during the early stage of administration and in young women. Micturition and defæcation may take place; the former being the more common, and also usually occurs in females. After effects are rare, and appear to be limited to headache, vomiting, nausea, and depression.

The nitrous oxide used should be pure. There is little danger in its use if sufficient care be taken, but there are three classes of patients I would warn you of, viz.:—

(i.) Patients with great vascular feebleness. There is a risk of syncope.

(ii.) Patients with extensive lung disease. There is a risk of hæmorrhage.

(iii.) Patients with valvular cardiac lesion. *Don't* re-administer after a short interval.

A method of administering *air* with nitrous oxide is one which deserves careful notice. It was first introduced by Mr. Rowell, of Guy's, a fact of which we ought to feel proud. The method is as follows: The patient is allowed to have from twelve to eighteen breaths of nitrous oxide, then one breath of air is given by shutting off the nitrous oxide and letting the patient have an inspiration before turning on the nitrous oxide again (you will understand that this is accomplished by simply moving the valve backwards and then forwards, but this action must be done quickly) after five more breaths of nitrous oxide, give one of air; this may be continued at the rate of one of air to five of nitrous oxide for some time if necessary, but two or three breaths of air are generally enough for dental operations. If any excitement is produced, the amount of air must be diminished to about one of air to eight of nitrous oxide. In children six to eight breaths of nitrous oxide should be given, then air admitted at the rate of one of air to four of nitrous oxide. It is very difficult to give just the right quantity of air, but experience will soon teach you how to do it.

The length of the anæsthesia varies from 35 to 55 seconds, and occasionally exceeds this time.

It is indicated for children, weakly subjects, anæmic girls and short inhalations. It is not indicated for patients who struggle and are rigid under nitrous oxide, alcoholics generally, unless pale and weakly, and long inhalations.

Nitrous oxide and oxygen.—I will not describe the apparatus at all, as it is familiar to most of you; those of you who do *not* understand it will be well repaid by a visit to the gas room, where, I am sure, it will be carefully explained to you by any of our anæsthetists.

Nitrous oxide and oxygen is a very difficult anæsthetic to administer, and no rule can be laid down which will apply to all patients to the same extent.

The quantity of oxygen required varies from 4 per cent. to 10 per cent. according to the type of patient. Dr. Hewitt says, "The quantity of the mixture required to produce anæsthesia will vary considerably, being dependent upon the proportion of oxygen employed, the depth and rate of respiration, the length of inhalation, the type of patient, and other factors."

Speaking generally, a smaller quantity of oxygen should be used in the case of men than of women.

Anæmic subjects usually require more oxygen, and the indicator should be placed at "3" or "4" at the beginning of the administration.

In affections of the respiratory tract, such as adenoid growths, enlarged tonsils, etc., more oxygen than usual should be given in order to produce the required anæsthesia.

Dr. Hewitt says: "There are, however, a few highly exceptional conditions in which some other form of anæsthesia is perhaps preferable. I refer particularly to patients suffering from such dyspnœa that no tightly-fitting mask can be applied: patients, for example, who are the subjects of aneurysmal or other pressure upon the trachea, very advanced phthisis, hydrothorax and other grave respiratory conditions. Putting such exceptional cases on one side, we may safely administer nitrous oxide and oxygen to all other patients."

Signs of anæsthesia.— Softly snoring breathing, a good pulse, a color as near the normal as possible, an insensitive ocular conjunctiva, relaxed eyelids, a fixed condition of the globes, and the absence of muscular rigidity in the extremities.

Advantages.—Longer anæsthesia, the average being 44 seconds, absence of cyanosis, jactitations and asphyxial symptoms, it is specially recommended for :—

(i.) Children.
(ii.) Anæmic and debilitated patients.
(iii.) Those who remain a very short time under N_2O.
(iv.) Those who have experienced unpleasant sensations under N_2O.
(v.) Patients advanced in years.

Objections:—

(i.) Patients are longer becoming anæsthetised, average 110 seconds.
(ii.) Patient is longer in shaking off the effect.
(iii.) It is difficult to tell when anæsthesia is complete.
(iv.) Retching and vomiting is more likely to occur.
(v.) The apparatus is complicated.

Should sickness occur, it is an excellent plan to give the patient half a tumbler of *hot* water to drink; the water must be so hot that you are not able to bear your finger in it.

In administering this gas there are three essential points to which attention must be paid at the same time, viz. :—

(i.) To keep the face-piece very accurately applied.
(ii.) To keep the two bags equally and *only partly* distended.
(iii.) To increase or diminish the quantity of oxygen according to the symptoms present.

These can only be acquired by practical experience, which is worth much more than anything you may read on the subject, and can easily be obtained by any of you who wish for it.

Ether and chloroform.—I don't intend to deal with, besides time would not permit me to do so; at the same time, I do not think that chloroform is advisable for dental operations. I would like, however, to say a few words about ether in combination with nitrous oxide.

There are two important methods of administering this anæsthetic :—

(i.) In which the nitrous oxide is etherised.
(ii.) In which the ether is nitrogenised.

(i.) Let us firstly consider etherised nitrous oxide. Unconsciousness is first induced with nitrous oxide; anæsthesia being completed with nitrous oxide which has passed through ether. It is usually administered by means of Clover's apparatus, which is a chamber containing ether, and is fitted to the connecting piece of the gas-bag and to the face-piece; by rotating this chamber the nitrous oxide has to pass over the ether contained in it before being respired by the patient. No ether should be introduced for the first eight or ten breaths—in the case of children the first three or four. Then the chamber should be rotated rapidly, say from "1" to "2," then pause to avoid any respiratory spasm; then go from "2" to "3," pause again; then turn on to "4," which is as far as you can go, and you will find if you get as far as this, that your patient will be fully anæsthetised after one or two breaths. You should choose the period of expiration for each increment of ether; if the ether is given too late or two slowly, the full effects are not obtained.

(ii.) Secondly we will consider nitrogenised ether. The patient is allowed to have five or six breaths of nitrous oxide, then the chamber should be rotated gradually and steadily; the first turn should be about $\frac{1}{8}$ of an inch, then $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, and progressively. If ether is given too soon the patient will resent the addition, in which case a little air may be given.

Should you get twitchings or irregular stertor, give a little air at once. The induction lasts from one and a half to two and a half minutes. The anæsthesia lasts from one to two minutes, according to the type of patient and the amount of ether used. Ether also acts locally, and you can frequently extract one or two roots after the patient is conscious.

The unpleasant smell of ether when the face-piece is first applied can be easily removed if a little perfume be dropped inside the face-piece.

After some consideration I have decided to devote a little time to "Accidents and Treatment," the following being the general accidents:—

(i.) Tongue slipping back, or being pushed back by the fingers of the operator, over the larynx. The symptoms will be arrest or difficulty in breathing, and perhaps asphyxia. Treatment is to pull the tongue forward, and forcibly extend the head on the spinal column.

(ii.) Forcing out a tooth or teeth with the prop or gag. Treatment: the tooth should be replaced immediately and afterwards kept in position by a ligature or splint; care should be taken to keep the parts thoroughly aseptic.

(iii.) Passage of a foreign body through the isthmus of the fauces, such as (i.) a tooth, (ii.) a piece of fractured forceps, (iii.) a piece of a gag.

The foreign body may become—

(i.) Arrested over the entrance to the larynx.
(ii.) Lodged in the larynx.
(iii.) Lodged in the trachea or bronchus.
(iv.) Impacted in the œsophagus.
(v.) Or may pass into the stomach.

In the first two instances there will be symptoms of suffocation, with violent coughing. The head should be bent well forward, and any obstruction removed with the finger, if possible; if not, inversion should be tried, and the back well slapped.

In the third case the symptoms will vary, and may or may not be present at the time of the accident. The

patient has a violent fit of coughing, and symptoms of asphyxia supervene. These may pass away, but recur afterwards and may lead to collapse of the lung.

The treatment, if the position of the body be known, consists in performing tracheotomy, and removing the body with forceps.

In the fourth case there will be symptoms of dysphagia. In this case, and also if the body passes into the stomach, the patient should be advised to take such things as new bread, porridge, etc. As a rule a foreign body which passes through the fauces will pass into the stomach.

If care be taken these accidents are easily avoided: in the case of extractions in the upper jaw, either in the bicuspid or molar region, if a napkin be placed well back in the mouth, behind the tooth you are going to extract, the tooth, should it slip out of the forceps, would fall *into* the napkin, and could not possibly get into the fauces. In the lower jaw, the teeth liable to slip out of the forceps are the bicuspids, and if a finger of the left hand be kept behind the forceps, this would direct the tooth outwards should it slip.

Gags and forceps should be tested frequently to see that they are all right, and not likely to break even with undue pressure. Any suspicious instrument should *not* be used.

Choice of anæsthetic.—This must be according to the type of patient and the operation to be performed. Local anæsthetics I do not believe in, though one must use them sometimes. I would advise you to avoid using cocaine for extractions at any time. Should you do so, let a $\frac{1}{2}$ gr. in 5 m. of water be your maximum. Nitrous oxide is by far the safest anæsthetic we have, while oxygen, air and ether are very valuable additions to it, and in certain patients more preferable, giving a longer anæsthesia, and consequently better results.

In conclusion, gentlemen, there is one question which I should like to hear discussed to-night, and that is, "Should a dental surgeon administer anæsthetics himself, or should he have a medical man to do so?"

I must now thank you for the attention you have given to my paper, and hope that it has at least proved interesting to some of you.

A discussion followed, in which Messrs. Hopson, Payne, Clarke, Campkin, Crombie, Farnfield, Wilkes, Tweeney and Umney took part.

Notice.

IT has been decided to hold the last smoking concert of the season on Saturday, February 26th, in the dining-hall of the club, and on this occasion, in accordance with general feeling in the hospital, it has been decided to charge 2s. 6d. apiece for tickets, the resulting sum to go towards defraying the expenses of the prosecution in the recent Surrey Theatre case. Tickets will shortly be obtainable from the Residents and others.

The Re-endowment Fund.

MR. HENRY LEWIS RAPHAEL has handed to the treasurer the munificent sum of £20,000, with which to build the new quarters of the nursing staff. The building will be known as the Henriette Raphael Nurses' Home, in memory of the late Mrs. Raphael. No eulogy is needed to recommend this splendid act of generosity. Its author will receive the deep thanks, whether expressed or not, of every Guy's man, and it will be heard with satisfaction that Mr. Raphael has permitted himself to be elected to the Court of Governors, and will serve on the Finance and House Committees.

The Re-endowment Fund has now reached £211,000, and the balance of £289,000 presents an apparently tremendous task to obtain. Yet it is safe to believe that other gifts and remembrances are in store for Guy's. A very gratifying legacy of £109 was paid the other day. It came from the late Dr. T. P. Stephens, of Emsworth, uncle of Dr. Lockhart Stephens, who is so well known to many of the present generation.

Among recent additions to the Re-endowment Fund have been another £1,000 from that munificent helper of the hospital, Miss Williams, bringing the total of her donations to £9,000, and the endowment of a cot by the committee of the Shortlands Fancy Fair. Our friends at Bromley and Shortlands have quite a refreshing way of keeping the ball rolling.

Royal College of Surgeons.

COURSE OF LECTURES FOR 1898.

LECTURE HOUR 5 O'CLOCK P.M. PRECISELY.

Monday, 21st, Wednesday, 23rd, Friday, 25th February.—H. J. Waring, Esq., F.R.C.S. (Erasmus Wilson Lecturer). "The Pathology and Treatment of those Diseases of the Liver which are amenable to direct Surgical Interference."

Monday, 28th February, Wednesday, 2nd, Friday, 4th March.—Professor F. G. Parsons. "The Muscles of Mammals, with special relation to Human Myology."

Monday, 7th, Wednesday, 9th, Friday, 11th, Monday, 14th, Wednesday, 16th, Friday, 18th March.—Professor C. Stewart, F.R.S. "On the Vertebral Column, and some additions to the Museum."

Monday, 21st, Wednesday, 23rd, Friday, 25th March.—Professor Henry Morris. "The Surgery of the Kidney."

Pass List.

Cambridge University.

DEGREE OF M.D.—Astley Vavasour Clarke.

Passim.

Guy's were successful in their first cup-tie against St. George's by eight points to four. It must be at once confessed that the team gave a somewhat disappointing display. There was plenty of energy thrown into the game, but though we were constantly attacking, there was a lack of finish in the outside play, which readily accounts for the smallness of the score. At the same time, it must be admitted that the George's men proved to be much more formidable opponents than their record for the season led us to expect. Their tackling was very keen, and was frequently the cause of a breakdown in the passing among our backs. Moreover, the offside tactics of the George's halves and a prominent member of the forwards, were allowed to pass unnoticed by the referee, and consequently our halves were seldom able to open the game for the three-quarters. The victory, however, brings us a step nearer the final, when we hope that our men will play a game worthy of themselves.

The first International of the season, that of England v. Wales, had considerable interest for Guy's men. In the first place, Dudgeon, whose play this season has been better than ever, was again a member of the International team. Unfortunately for him and the English side, it was not long after the commencement of the game that he received a nasty blow on the head which caused his temporary retirement for half the game, and necessitated his keeping his bed for the four days following. He is now, however, nearly himself again, and hopes to be able to play in the next North v. South match. S. Lee, the Irish three-quarter, who broke his clavicle in the same match, was an inmate of Guy's, first in Cornelius and then in Bright, for some days after the game.

The Charity Cup (Surrey) Competition has once more lost its interest for Guy's. On Saturday last West Croydon beat the Hospital by a single goal after a game characterized chiefly by the scrappy play of our forwards and the dubious tactics of our opponents. The latter trait should have been promptly eliminated by the referee at the very beginning of the game, but the elimination of the former has been the chief source of trouble throughout the whole season. Although it is rank heresy to say so, we believe there is more real combination and correct forward play in the second eleven than in the first; indeed this need hardly be a matter of surprise, for the second team has always striven to keep the same row of forwards since October last. The continual changing of the front rank in the first eleven, although it may have resulted in an individually better set of forwards, has more than nullified such an advantage by the inevitable loss of cohesion and swing which it entails. The team should have been settled six weeks ago, and barring casualties, should not have experienced the slightest variation in any of the matches up to the present. When this occurs we shall find all the soccer cups in our smoking-room.

The Second Soccer team on the 10th met London Hospital Second in the new Junior Hospital Cup. Now, although it cannot be denied that the better team won, yet it would have been quite possible for our men to have pulled off the match. Several times London made openings through the inability of our halves to act up to the rule of "taking the ball or the man." The goal-keeping on our part was hardly brilliant, but the onus of defeat must lie on the shoulders of the halves. It is true they were handicapped by the absence of Greenfield from the centre, but this would hardly entirely account for the sorry exhibition the half-back line gave. It seems more likely, when we consider the excellent record which the second enjoys, that the men were depressed by that fatal cup-tie fever we have before noticed.

We were a little bit previous, last issue, in bewailing the loss of the trees in the Park. We hardly realized that our ingenious architect intended to play a trick on Nature and do a little spring bedding-out on a large scale. With very great care, the larger trees have been cleared to the roots and shifted into the last bit of park which remains to us. This is a decided boon. Trees are none too plentiful in the Borough, and the local fowls of the air will note with pleasure that the number is not to be curtailed. It is a pity, and none the less a pity that necessity compels it, that the open spaces in the hospital are gradually being covered; but still, every inch of space absorbed in this manner is one more step towards the ideal hospital dreamed of by Thomas Guy.

Every Guy's man interested in London University should read Mr. H. G. Wells' articles in the current *Outlook*. The humorous though scathing manner in which he deals with the gloomy features of that gloomy body, must find an echo in the heart of every London undergraduate. Nor is it the less delightful when it is remembered that the author of the *Time Machine* was himself, as he confesses, a typical sample of the London University product, and the writer of a text-book for a Tutorial Association, which he now brands as a nest of crammers. If we remember rightly this text-book virtuously deplored the fact that crammers existed, and pointed out how to seek knowledge for knowledge's sake; and now Mr. Wells says the whole business was pure cram!

Stories dealing with medical life are so comparatively rare that many will read "Trewinnott of Guy's" with more than ordinary interest. The book is by Mrs. Kernahan, whose husband wrote that strange little work, "The Child, the Wise Man, and the Devil." The dedication of the book has been accepted by Sir Samuel Wilks, with whom Mrs. Kernahan's first husband, the late G. T. Bettany, collaborated in writing the history of Guy's Hospital.

Several contemporaries have noticed lately the interesting little ceremony that took place on January 29th, at Hereford, when Miss Susan Cator was presented with the Order of the Red Cross, awarded by the Queen for the signal services rendered by her during the Crimean War. Miss Cator, who was born in 1815, was too infirm to travel to Windsor, so the Order was sent, at the special request of Sir Evelyn Wood, to Hereford. She received her training at Guy's, and then went to the London, and thence to the Crimea, where her devoted attention to Sir Evelyn Wood, whose case was regarded as hopeless, was the main factor in restoring that officer to the service of his country. In spite of her great age, Miss Cator still manages to do her own gardening. Nothing delights the old lady more than a chat about her nursing life, and she shows her visitors with great delight her many letters from her illustrious patient, who always remembers her birthday.

Our worthy old friend Betts has expressed to us the wish that his testimonial might take the form of a gold watch and chain, and such it accordingly will be. Since our last list of acknowledgments a further sum of half a guinea has been handed to us from F. Wacher, Esq., M.R.C.S.

We have bidden farewell lately to several Guy's folk who are off to uphold the honour of our hospital in foreign climes. G. N. Mottram sailed from Liverpool a fortnight ago, bound for the West Coast of Africa, and now Hallam Hardy, familiarly known as "Stucky," has started in hot pursuit. With this same expedition of Colonel Lugard's there will also go three of our very best nurses, Nurse Nutt and Nurse Powell from Clinical, and Nurse Clark from Bright. We accord them every good wish for a successful journey.

When will someone realize that it is impossible to put a quart into a pint measure—or pot—and to get all those who wish, into our one smoking-room. From 12.30 p.m., to 1.30, the smoking-room in the college is absolutely crammed with smokers and carbo-hydrate consumers. Upstairs, the carnivorous section fills to overflowing the Dining-hall, while an overplus flows into the "Ship" and the various subterranean eating-houses on London Bridge Approach. Now, the question of catering is a subject not to be lightly dealt with in "Passim," but the question of accommodation for those who wish to have a quiet pipe after lunch may well be tackled in this column. Everyone will admit that our smoking-room is far too small, and everyone will admit that it is impossible to enlarge it. But why should not the Committee turn the "Reading-room" into an accessory smoking-room, without a bar, and permit talking therein? A small minority of the members of the Union habitually use the "Reading-room, as a place of study; a smaller minority, generally in the afternoon, use it as a place of rest. Yet the studious might be driven to the Hospital Library and the sleeping ones awakened without seriously harming anyone.

Indeed, it is somewhat of an anomaly that the Clubs' Union—which is primarily intended to further the interests of students in relaxation—should provide a study which is really in the province of the Medical School. When there was no harm done by its existence, the reading-room was no doubt a very valuable aid to a few members of the Clubs' Union, but now that there is a crying need for more smoking-room

accommodation, we certainly think that the reading-room should cease to exist as such, and that another smoking-room should take its place. It is quite possible that the objection may be raised that all clubs have reading-rooms, in which conversation and smoking are forbidden; but then our organization is not on all fours with the ordinary club. The mere fact that the rooms are closed at eight o'clock cuts us adrift from club customs. Besides, all clubs worth the name take care to have sufficient accommodation for their members.

This naturally leads to another unfortunate circumstance. Although the wax-model museum and the library are ample accommodation for ordinary reading, there is a singular lack of rooms in which special work can be done. For instance, supposing one wants to read a brain from the real object, and not from wax models, there is no place except the prosector's room in which this can be done. When the physiological department moved into their magnificent quarters they left several very good rooms without tenants. The ground floor room now has been turned into a pickle room and is the very beau-ideal of a room for anatomical work. Indeed, before Christmas it was never without its little groups of men reading bones or running over pickles, brains, etc. But now the door is locked and none are allowed to enter. The reason is difficult to see. It is surely perfectly easy to regulate so that the privileges of the room are not abused, and yet the many men who would appreciate the conveniences of this room for work are debarred from entry. As for the rooms on the first floor, they are quite empty, and, of course, locked.

The next examination for the Charles Murchison Scholarship in Clinical Medicine will be held at the Royal College of Physicians of London on Monday, the 18th day of April, 1898, and following days. The Scholarship is open to any student of medicine who has been a registered medical student during a period of not less than four, and not more than six years at a hospital in London or Edinburgh, recognised by the Royal College of Physicians of London, or by the medical faculty of the University of Edinburgh, and whether holding a medical qualification or not. The examination will be conducted both orally and in writing, and will include—(*a*) examination of patients, with reports on their cases; (*b*) questions on pathology and treatment, and (*c*) examination on specimens. The Scholarship is of the value of twenty guineas, and is tenable for one year. Intending candidates are required to send in their names to the Registrar of the Royal College of Physicians, Pall Mall East, London, not later than April 4th, with evidence of the duration of their medical studies from the deans of their respective schools.

The need is often felt in practice of a house in a suitable climate for the reception of convalescent patients, especially of ladies, who can only afford to pay part of the expense involved in a stay away from home. This need is largely met by the Erith House Institution for Invalid Ladies at Torquay, whose report has been sent us with warm recommendations. Several medical men give their services to the institution free of charge, and with the help of charitable subscriptions the payment demanded for each patient is only a guinea per week. The Lady Superintendent was formerly a sister at St. Thomas's Hospital, and is intent on making Erith House not only a nursing institution, but a home for her patients. The warm climate of Torquay makes such a home especially useful for phthisical women and girls with a definite chance of cure. It is an interesting fact, not noted in the report, that the home originated in the case of two patients sent down by Miss Florence Nightingale, then in charge of a similar home in Harley Street, shortly before she went out to the Crimea.

At the recent examination held at Netley Hospital for Commissions in the Indian Medical Service, Mr. E. J. O'Meara obtained fourth place, and gained the Martin Gold Medal in Military Medicine; and at the examination for the Army Medical Staff, Mr. W. P. Gwynn obtained eighth place. We offer them our hearty congratulations on their success.

The following is taken from the *British Medical Journal*: A memorial tablet erected by friends to the memory of the late Mr. Walter Charles Rand, Special Plague Commissioner at Poona, who was assassinated in that city when returning from the Governor's reception on the day of the Diamond Jubilee of Queen Victoria, was unveiled at St. Peter's Church, Dulwich Common, by Mr. H. M. Birdwood, on Saturday, January 29th. Mr. Rand, who belonged to the Indian Civil Service, was the son of Mr. John Rand, F.R.C.S.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

The Guy's Externs.

DEAR SIR,—At the present time, when so many changes are being made in the working of the hospital, cannot the Authorities be induced to take a very long-standing grievance into consideration? I refer to the treatment of the Externs.

The duties of this appointment are by far the most arduous of any undertaken by unqualified students. Not only is the responsibility as great as that of Dresser for the week, but the work is done frequently in circumstances of great discomfort and sometimes of personal danger, and at the same time the long-continued strain of short hours of sleep at irregular intervals is most trying to men, a large proportion of whom cannot be called mature. Yet, Sir, all that is provided for the men who do this terribly hard work is—permission to rent some of the noisiest rooms in the College.

The principle of providing board and lodging for students doing special work for the hospital is conceded in the case of the Dressers for the week, who are found in comfortable rooms, and meals at the Residents' table free of charge. Surely this principle might with great justice be extended to the Externs.

In the first poster appealing for funds for the hospital, credit was taken for 3,000 maternity cases per annum, and yet these 3,000 cases cost the hospital only a few drugs and the board and lodging of two charities, while the cost to the students was something like £720, that is £10 each for six externs per mensem.

I cannot doubt that if the Treasurer and House-Committee realised these facts they would be anxious to improve the condition of the Externs, and I hope that you, Sir, may see your way to back up this appeal.

"PRIMIP."

The Surrey Theatre Case.

DEAR SIR.—Now that this matter has been successfully concluded, I would like to make the following statement. It is a statement amply supported by the views of the House Committee, by the Judge in his summing up, and by the verdict of the Jury:—"*That we did nothing at that theatre of which, as gentlemen, we are in the slightest degree ashamed, or of which, as Guy's men, Guy's Hospital need be ashamed.*"

We deeply regret that the name of the hospital was unavoidably dragged into a case, which, by the false charges deliberately trumped up against us, was wrongly made disreputable. Of those charges little need be said by me, now that they have been dismissed by the magistrate, and when a Jury (drawn as they were from the immediate neighbourhood of the Surrey Theatre and therefore, if prejudiced at all, likely to be so against us), characterized the evidence of a principal witness as disgraceful.

I would take this opportunity of publicly thanking, in the name of all of us, the Treasurer, the House Committee, and the Staff, for the kindly support which they have given us from the very first, and for the generous manner in which they are, at the present time, coming to our assistance.—Yours faithfully,

EDWARD W. S. ROWLAND.

Nursing News.

SOME weeks ago we had the pleasure of announcing through these columns the new "off-duty hours" for nurses on week-days. To make the scheme complete we are now able to add the time-table for Sunday, as recently passed by the House Committee. *Every Sunday*, two and a half hours (for attendance at a place of worship), either from 10 a.m. to 12.30 p.m., or from 6.30 to 9 p.m. *Each alternate Sunday*, three hours (for recreation), from 2 to 5 p.m. These regulations came into force on February 5th.

On Monday, February 14th, Nurse Ford gave up her post of Staff Nurse in Lazarus ward to take up the new post just created (assistant dormitory mistress), in consequence of the large addition to our nursing staff which has recently taken place. Her duties will be varied, and will include the care of nurses who are ill in the dormitories, and the "breakfasting" of those who have days off, the clothing of patients going to convalescent homes, and care of the Samaritan cupboards, etc. We congratulate Nurse Ford on her appointment, and also the nurses who will benefit by her care and experience. Pro. O'Neill has been made head nurse in Lazarus ward.

Nurse Hinckly has left us to take an appointment as charge nurse at the Park Fever Hospital.

Nurse Tubbs has been transferred to Out-Patients, and Pro. Cheetham has been made head nurse in Cornelius ward.

Miss Ogilvie (Sister Christine) has been made night sister, and entered on her new work on February 8th. She trained with us as a lady pupil, and has since then been working at the Shadwell Hospital for Sick Children, where she was acting as night sister for some time.

It is with great pleasure that we are able to give notice of a fresh prize for the probationers. The "Keogh Prize" is for the candidate obtaining highest marks in the surgical examination. At the time of Nurse Keogh's death, a considerable sum of money was left in the hands of the Governors from the amount collected by "Guy's men" for her. Some of this money is to be expended on a memorial tablet to be placed in the chapel, and the rest is to perpetuate her name and memory, by being set apart and used as an annual prize in the nursing school. The prize will take the form of a surgical dressing case.

The Ophthalmic Out-Patients.

Considering the fact that Guy's boasts of an Ophthalmic Out-patient Department (numbering some 5,000 cases per annum), it is rather surprising that one is so frequently asked, "Where shall I do Eyes? Which is the better hospital to go to, Moorfields or the Royal Eye?"

The man who on Monday, Wednesday, Thursday and Saturday regularly puts in a few hours at surgical out-patients never seems to realise that on Tuesday and Friday these same rooms are not locked up, but are utilised for the reception of patients suffering from diseases peculiar to the eye. The following classified list of the new cases will give some idea of the character of the work done in the out-patient department, and will also serve as an answer to the above-mentioned query. This list comprises the new patients attending Mr. Brailey's out-patients during the last six months of 1897, and shows a variety as extensive, if not a number as great, as can be produced by any of the special hospitals. The average attendance on each eye day amounts to about 40, and of these about 48 per cent. are suffering from errors of refraction—hypermetropia, myopia and astigmatism—or presbyopia. These in time tend to become monotonous; the remaining 52 per cent., however, afford a grand field for clinical study.

Diseases of 1,500 Out-Patients.—July–December, 1897.

Under the care of Mr. Brailey.

Lids.			
Cellulitis		5	
Ciliary Blepharitis		98	
Chancre		1	
Congenital Cleft		3	
Cyst (Tarsal)		17	
Ecchymosis		2	
Ectropion and Entropion		8	
Hordeolum		12	
Lupus		1	
Molluscum Contagiosum		3	
Nævus		1	
Papilloma		2	
Ptosis		4	
Trichiasis		6	163
Lachrymal Apparatus.			
Epiphora		7	
Fistula		1	
Mucocele		13	
Acute Dacryo-cystitis		22	
Chronic Dacryo-cystitis		17	60
Conjunctiva.			
Conjunctivitis, Acute Catarrhal		62	
Chronic Catarrhal		26	
Follicular		12	
Gonorrhœal		3	
Granular (Trachoma)		10	
Membranous		3	
Neonatorum		23	
Phlyotenular		41	
Traumatic		18	
Ecchymosis		6	
Foreign body		27	
Lymphangiectasis		4	
Pinguecula		6	
Pterygium		2	243
Cornea and Sclera.			
Abrasion		5	
Abscess		3	
Cyst (Dermoid)		1	
Episcleritis		6	
Herpes		1	
Keratitis, Interstitial		23	
Marginal		12	
Superficial		38	
Kerato-conus		4	
Kerato-globus		1	
Kerato-iritis		2	
Leucoma		6	
Leucoma Adherens		4	
Nebulæ		36	
Staphyloma, Anterior		2	
Ulcer of Cornea, Simple		65	
With Hypopion		10	
Perforating		6	
Necrotic		8	
Dendritic		1	
Wounds, Perforating		3	237
Iris and Ciliary Body.			
Aniridia		1	
Coloboma of Iris		1	
Irido-cyclitis (Keratitis Punctata)		6	
Irido-donesis		1	
Iritis, Gonorrhœal		1	
Rheumatic		1	
Syphilitic		15	
Traumatic		4	
Mydriasis		4	
Occluded Pupil		2	36
Lens.			
Congenital Dislocation		1	
Cataract, Anterior Pyramidal		2	
Congenital "Dot"		2	
Lamellar		4	
Senile Nuclear		20	
Cortical		4	
Posterior Polar		2	
Incipient		12	
Traumatic		5	52
Vitreous.			
Hæmorrhage		5	
Hyalitis		3	8
Optic Nerve.			
Atrophy due to Locomotor		3	
Post-neuritic		2	
Syphilitic		2	
Neuritis, due to Bright's Disease		2	
General Tumour		1	
? Meningitis		1	
Neuro-retinitis		1	12

Retina.		
Detachment	5	
Neuro-retinitis, Syphilitic	1	
Retinitis, Albuminuric	6—	12
Choroid.		
Atrophy with high Myopia	8	
Choroiditis	3	
Disseminated	8	
Coloboma	1	
Glaucoma	8	
Rupture	2	
Staphyloma, Posterior	4—	34
Globe and Orbit.		
Buphthalmos	1	
Cellulitis	1	
Disorganised Globe	2	
Exostosis of Orbit	1	
Foreign body	1	
Gumma of Orbit	1	
Intra-occular Tumour	2	
Microphthalmos	1	
Phthisis Bulbi	5—	15
Miscellaneous.		
Blepharospasm	2	
Diplopia	4	
Hemianopia	1	
Nystagmus	6	
Paralysis of the Facial	1	
Sixth	5	
Tobacco Amblyopia	13—	32
Syphilitic Affections.		
Chancre (Primary) of Lid	1	
Choroiditis, Disseminated	8	
Gumma of Orbit	1	
Hyalitis	3	
Keratitis, Interstitial	23	
Irido-cyclitis	6	
Iritis, Secondary	12	
Tertiary	3	
Neuro-retinitis	1	
Optic Atrophy, Double	2	
Paralysis of the Sixth Nerve	5—	65
Errors of Refraction and Presbyopia		733

From the Gazette's Special Pathologist.

NOTICES.

A. J. S., Whitby.—Microscopical examination: The centrifugalized deposit consists almost entirely of leucocytes, with which are a few red blood discs and some squamous epithelium. No tube casts or renal elements were detected. The masses referred to in your letter would appear to be simply aggregations of disorganised leucocytes held together by mucin, but without definite shape.

F. R. B. B., Tunbridge Wells.—No tubercle bacilli could be found in the sputum, which, however, contained, amongst other bacteria, both staphylococci and streptococci.

C. E. O., Bletchingly.—Tubercle bacilli are present in small numbers in the sputum.

PATHOLOGIST.

The Surrey Theatre Case.

Verdict and Sentence.

At Newington Sessions, on February 11th, before Mr. McConnell, Q.C. (chairman), the trial of James Salter, theatre attendant, for assaulting Mr. E. W. S. Rowland, B.A., a medical student at Guy's Hospital, by striking him in the eye, at the Surrey Theatre, on November 12th, during the performance of "Sporting Life," was concluded. Mr. Horace Avory and Mr. Biron were for the prosecution; and Mr. Rawlinson, Q.C., and Mr. Beard for the defence. The jury returned a verdict of guilty. Mr. McConnell said it was an unjustifiable, violent and brutal assault, and sentenced the prisoner to one month's imprisonment with hard labour, remarking that it was only the previous good character of the prisoner which prevented him from passing a far heavier sentence. There is no need here to refer to all the details of the case, which occupied six days in the police-court and two days at sessions. The remarks of the chairman, when summing up the case, amply cleared the characters of the Guy's men concerned. He expressed his opinion that the conduct of the management in bringing charges against the students, in support of which they brought no evidence, was disgraceful. He further considered that the conduct of the manager, Lennard, in sending subordinates to do the work he should have done himself, was, to say the least of it, discreditable. He characterised the evidence of Lennard and Springthorpe as untrustworthy, and commented severely on that of the witness Houghton, for assaulting whom, the cross summons against seven of the students were taken out and summarily dismissed by the magistrate at the police-court. The jury, in returning their verdict, again drew the chairman's attention to the disgraceful discrepancies in Houghton's evidence.

The following resolution of the House Committee, passed in December last, shows clearly the view which the hospital authorities took of the matter:—

> "At the meeting of the House Committee of the Governors of Guy's Hospital, held on the 1st December, 1897, the treasurer, Mr. H. Cosmo Bonsor, M.P., reported that he had made enquiry into the facts of the alleged disturbance in the Surrey Theatre by Mr. Rowland and other students, and had satisfied himself that, though the criticisms offered might have been extremely annoying to the actor against whom they were directed, the students did nothing unbecoming their position as gentlemen, and that their expulsion was uncalled for, and conducted with unnecessary violence. He had, however, recommended that the case should be settled out of court."*

*Three separate attempts to withdraw the case were on this account made, but the magistrate refused to allow such a course to be taken, remarking that the case was too serious to be allowed to lapse in this manner.

My Three Years in the Arctic.

By R. Koettlitz, M.R.C.S., Medical Officer to the Jackson-Harmsworth Expedition.

(*Continued.*)

In the morning the first proceeding was to feed the ponies, after which breakfast was prepared; it consisted of oatmeal porridge, bacon and sausage cooked in the frying pan, tea, roll and butter, after which everything was put away and lashed securely on the sledges, tent taken down, etc., and also securely lashed upon the sledge, and the march of the day begun.

I will here point out an inconvenience to which one is subject when out sledging in the Arctic, and that is the condition of the furs after being out a week or two. Not having any facility for drying our garments, and on account of the gales of wind, and consequent driving of the snow, one's clothes become blown full of the fine snow which is thus driven about; again, the action of the skin causes moisture to exude through one's clothes, and this, on account of the coldness of the air does not evaporate—at least not to the full extent, but accumulates upon the outside of one's garments in the form of hoar frost. Now, when camping or stopping for luncheon, very little of this can be brushed off before putting on furs, which, as soon as they are on, by producing, or rather keeping inside the heat of one's body, causes this frozen accumulation to thaw, producing steam. This caused the inside of the furs also to become damp, and each time they are used to become more and more damp, because one has no possible chance of drying them. This moisture, therefore, when the furs are not used, and are packed away on the sledges, freezes hard, and makes the furs very stiff and hard. So hard and stiff do they become after a couple of weeks' or more outing, that it takes a considerable time to get them on by gradually getting partly into them and the heat of the body thawing them a bit, then getting in further, and so on, so that an hour or more may be expended before one can properly get into them. They also get into a mess about the collar in front and chest. This is caused by the moisture from one's breath, when sleeping, accumulating there as ice, and also by drops of soup, tea, cocoa, etc., dropping there, which one cannot help when clumsily taking one's food, dressed in furs, which necessarily impede movements. They cannot also be brushed off, for they freeze there as soon as they fall, and then cannot be got off until one's return, when one can thaw the garment in the house before the fire. This frozen, icy condition of the collar is very uncomfortable, for it scrubs one's neck, causing it to become quite sore after a time. The condition of the food also no one can have a conception of, when used in a sledge journey. Bread, of course, is frozen, and unless thawed, is gritty, being full of ice particles; biscuit is very much harder than in the house; butter one has to hack up in chips; moist sugar and treacle has to be broken up with a hatchet; jam is almost as bad; all meat has to have the hatchet used to cut it up; cheese crumbles up into hard semi-ice pellets, which one has to thaw in one's mouth before one can eat it. We each of us, in the course of our sledging, lost one or more teeth through biting frozen food.

During this first journey we learnt by troublesome experience, how very inconvenient a moustache is on such occasions, for the moisture from one's breath, etc., forms so thickly upon it as to form long icicles. These, of course, easily thawed off when we got into the house at Cape Flora; but out sledging such is not the case, and sometimes, through these icicles freezing upon one's beard, it prevents the opening of one's mouth for food or drink until one either thaws it by putting it into one's hot soup or tea, or else wrenches the hairs out and breaks the icicles in order to free one's mouth. I need not say that after this first experience we invariably cut off close to the skin with a pair of scissors as much of our moustaches and beards as we could before starting out again. Other inconveniences of sledging are the soreness that invariably attacks the lips and fingers, as well as face. That of the lips seems to be caused by their becoming dry and then cracking, for one does not seem to be able to keep them moist. At last the whole of one's lips become one scab. That of the fingers seems to be due to continuous small frostbites that attack them when one is obliged to use the bare hand in tying up bags and other small things that cannot be done with the hands in mitts, and that of the face is no doubt caused by the continuous action of the cold air upon it, together with the glare of the sun, both directly upon it, as well as indirectly by reflection from the white surface around one, as well as repeated small frostbites.

Time will not allow me to detail the many little incidents which frequently occur during a sledge journey. We had visits from bears, but our dogs generally warned us of their approach, but not always, for on one occasion a bear came quite close to our camp and looked at it and our pony, but did not molest us, and quietly walked away. Many have no doubt heard of "Arctic thirst," upon which, as a fact, some have cast a doubt; we have, however, most of us experienced it, I certainly have; yet I may say the term "Arctic thirst" is perhaps a misnomer, for it is nothing more than the ordinary thirst one is attacked with after one has exerted oneself a good deal, and after a good deal of moisture is lost through prespiration, the reason why it is perhaps more felt in the Arctic is, I think, due to the fact that one cannot get a drink until a halt is made and some ice or snow is melted in the cooker, and also that one cannot afford the fuel to melt as much as one would like to drink.

We travelled upon the sea water ice, or floe, in the fjords for the most part, and occasionally came across cracks with water in them, and some fairly wide. We also had to travel upon glacier, where cracks and crevasses were a source of danger and difficulty, as can

easily be imagined. We luckily did not, however, come across such crevasses as Payer describes, nor did any of our animals or sledges fall into them in the way his sledge, man, and dogs did, though our ponies managed to get up to their shoulders into them, and we had to haul them out not infrequently.

Before we returned, we had a great deal of difficulty with "boggy" floes, caused by the melting of the snow underneath the snow surface, which through the salt encrustation on the surface of the ice under the snow, causes it to melt at any temperature above zero, so that our ponies very often, our sledges and ourselves occasionally, got through the thick snow, which is blown hard on the surface through the frequent gales which occur in Franz Josef Land, and one does not sink much into in the ordinary way. The poor ponies would thus continually flounder in and out of this sloshy, boggy snow up to the belly, sometimes even sticking, so that one would have to unharness them and take them on to a firmer spot and then haul the sledges to them and there attach them again, and so on. This, however, generally only occurs when the season is getting late, namely, in May, by the middle of which month practically all the sledging was over. I did have a short one of forty miles or so after this, but took dogs, who did not so readily go through into the water in the way ponies did. The results of this sledge journey was on the whole very startling, for they transformed the land, which had now for over twenty years been thought a continent—and it had been believed because of the reports brought home by Julius Payer—into a broken up mass of small islands, it specially startled us also, because it gave us the first inkling of what we later found to be the case, namely, of the impossibility of our making Franz Josef Land—because of these changed conditions—the base from which a journey could be made, with any hope of success, with the object of getting to the pole.

Some birds had returned by now, and others were returning in large numbers. We saw many about while sledging, such as Ivory and Glaucous Gulls, Dovellies, Rotges, Mollys or Fulmar Petrels, and last, but not least in importance, the sweet little Snow Bunting. The other living creatures we saw were bears, and one seal, which we shot on the ice, it turned out a saddle back or harp seal, and very good eating.

All sledging was done by the beginning of June, and now the birds with other zoological specimens, the collection of which engaged our attention, geological and botanical collections were also eagerly engaged in. The flowers began to come out apace, first and prettiest was the purple Saxifrage (*Saxifraga oppositifolia*), one of the commonest arctic plants, the Buttercup (*Ranunculus Nivalis*), soon the Arctic, or as it is called in England, Iceland-poppy (*Papaver Nudicaule*), "Scurvy Grass" (*Cochlearia Fenestrata*), *Draba Alpina*, *Cerasteum Alpinum*, and many other plants were common, and later, Mr. Harry Fisher, our botanist, came across some rare plants, and even some new to science. About this time the old man Mouat, who had become worse and worse with scurvy, died, and we buried him on the plateau at the back of the house.

Now the ice seawards showed every appearance of breaking up, so all hands got to work at sawing the ice with huge ice saws, and also blasting with gunpowder round the ship to have her clear when the water came up to the ship, so that she could start on her homeward voyage at the first opportunity. By July the 3rd this took place, and we were glad to see her sail away taking with her our letters and other things we sent home.

We now prepared for our journey of exploration by boat, and on the 11th of July, the sea being then fairly clear of ice, we left Cape Flora in the "Mary Harmsworth," a whale boat which we had for the purpose, and sailed west, landing and collecting scientific specimens, also taking their positions by astronomical observations at Bell Island, Capes Grant, Crowther, Neale and Stephen, also at Cooke's Rocks. We saw as well, but were unable to land upon because of the ice face surrounding them, Capes Ludlow and Lofley, discovering as well a new cape beyond Cape Lofley, which Jackson named Cape Mary Harmsworth, in compliment to Mrs. Harmsworth. We found a new one also towards the head of Cambridge Bay, which was named Cape Fridtjof Nansen, after Dr. Nansen. The whole of the coast all along this south-western shore was also mapped in. *(To be continued).*

Sport.

Association Football.

GUY'S v. EWELL.

Played at Ewell on February 5th. Guy's were very weakly represented, and this accounts in some way for the disastrous result—a defeat of five goals to nil. Very little need be said of the game which was, however, by no means so one-sided as the score would represent. There was an utter lack of "go" in the team, while combination was practically absent. Thomas played a good game in goal, and could not have saved any of the goals. Team:—

GUY'S.—A. R. Thomas (goal); W. M. Robson, E. A. Longhurst (backs); R. W. B. Hall, J. Matthews, L. O. Card (half-backs); Sub., H. K. Lacey, A. Hughes, L. Humphry, A. C. H. Gray (forwards).

GUY'S v. WEST CROYDON.

SURREY SENIOR CHARITY CUP.

This match—the first round of the Charity Cup—was played at West Croydon on February 12th. Several changes were made in the team, Swan turning out again at left-half, while Shepherd was tried at centre-half. Among the forwards Hughes was moved from inside left to the right wing, Humphry resuming his old place, with Gray on the outside. Unfortunately McAlpin was an absentee, his knee still preventing him from playing.

Guy's started with the wind and sun behind them, and it seemed as though we should have a somewhat easy

task, our forwards passing well, and keeping the ball close to the Croydon goal. Shooting was, as usual, our weak point, and though time after time we ought to have scored, it was not until about half an hour from the start that Hughes put the ball into the net for us. The Croydon forwards then played up hard and made several strong attacks, but Longhurst and Robson were able to keep them from becoming dangerous.

On crossing over, Guy's started well again, carrying the ball down the field by some good passing; from two of these runs goals ought to have been scored, Humphry and Wiltshire each shot wide, however. Croydon now pressed strongly, and Guy's were kept busy defending for some time. Hughes and Mandy made a good run down the ground, and for a time Guy's were pressing. From a kick-out, however, Longhurst missed his kick badly, and the Croydon centre getting right away, scored for them. The game was now mostly in our half of the ground, and Thomas was called on to save frequently, he was, however, always equal to the emergency, and saved splendidly. Just before time, from a scramble in front of goal, one of the Croydon forwards scored the winning goal for his side, and the game ended in a defeat for Guy's by two to one.

It was a very disappointing game, as Guy's certainly ought to have won. The utter inability of our forwards to score when they had the opportunity, however, accounted in a great measure for the defeat.

Humphry was by no means at his best, his shooting being weak, he and Wiltshire, however, worked hard. Hughes was in a new position, which perhaps accounted in some way for his wildness at times. Of the halves Shepherd played a good defensive game, but his passing was poor. Robson at back played a sound game throughout, and was much more reliable than Longhurst, his kicking being very good. Longhurst does not seem to use his pace and weight to the best advantage, and appears at times quite inattentive to the game. Once more we would suggest his taking the trouble to train. Thomas in goal was at times brilliant, and has not played a better game this season. Team:—

Guy's.—A. R. Thomas (goal); W. M. Robson, E. A. Longhurst (backs); R. W. B. Hall, —. Shepherd, R. H. J. Swan (half-backs); P. S. Mandy, A. Hughes, H. P. Wiltshire, L. Humphry, A. C. H. Gray (forwards).

GUY'S 2nd XI. v. LONDON 2nd XI.
Inter-Hospital Junior Cup.

The above tie was played at Honor Oak Park on February 2nd, and resulted in a victory for London by five goals to three.

Guy's kicked off against a strong wind, and London immediately pressed. Our defence was very weak, the London men being constantly unmarked. London scored their first goal after about ten minutes' play, Smith missing in attempting to punch. Shortly after they scored again, and then a third from a mis-kick by Matthews. After this our men played up better and carried the play into the other half, and should have scored on one occasion. During the remainder of the first half London added two more goals.

On restarting, with the wind Guy's had the best of play for about twenty minutes, when Roberts scored with a fine long shot. Roberts shortly after added a second, and from this point Guy's had all of the game, but were only able to score once, by Ash, although several shots were very close. Our defence was the weak point. Miles was the best of the halves. The backs were quite off colour in the first half, but Matthews improved in the second. Team:—

Guy's.—F. M. V. Smith (goal); J. Matthews, F. J. Turner (backs); L. G. Nash, T. G. Miles, H. Tipping (half-backs); C. Witcomb, J. R. S. Ash, P. W. L. Camps (captain), L. J. Hughes, W. O. Roberts (forwards).

GUY'S 2nd XI. v. EWELL 2nd XI.

This match was played on our ground on Saturday, February 5th, and after a poor game resulted in a win by four goals to nil. Our team lacked dash, and should have scored much more. Goals by Witcomb (2), Roberts and Hughes. Team:—

F. M. V. Smith (goal); F. J. Turner, H. Tipping (backs); T. G. Miles, J. Brydone, J. Braithwaite (half-backs); P. W. L. Camps, T. Piggott, L. J. Hughes, W. O. Roberts, C. Witcomb (forwards).

GUY'S 2nd XI. v. OLD FORRESTERS 2nd XI.

Guy's again losing the toss, kicked of with the wind slightly in their favour, but took a few minutes to pull themselves together, then owing to a mis-kick on the part of one of the opposing backs, Camps scored. Guy's now continued to press, Ash scoring, our halves put in some very good corners; from one of Tipping's, Lacey scored. Three more goals were added before half-time, two put through by Lacey, one by Ash; Guy's so crossing over with a lead of six goals, in spite of the poor combination amongst the forwards.

In the second half the backs were at fault, playing the worst game they have played this season, Turner and Smith being especially conspicuous. Braithwaite is very slow after his first attack. Old Forresters scored three times, of which two ought to have been saved. Guy's scored once more through Lacey, but ought to have scored several times. Result, seven to three. Team:—

F. M. V. Smith (goal); F. J. Turner, J. Matthews (backs); T. G. Miles, H. Tipping, J. Braithwaite (half-backs); P. W. L. Camps, J. Ash, H. K. Lacey, L. J. Hughes, C. Witcomb (forwards).

Rugby Football.

GUY'S v. LEICESTER.
(From a Leicester paper).

"Ten points to nothing does not quite represent the character of the game played on the Welford Road ground on Saturday, when the Tigers added another victory to their list by defeating Guy's Hospital. Whilst it cannot be said that the Tigers were lucky to win, their play, on

the whole, was not a great deal in front of that of their opponents. The condition of the ground was against good football, and placed the visitors at a greater disadvantage than the home team, and when this is considered, together with the bad luck that dogged the Londoners throughout the game, the victory loses some of its spice, and the defeat much of its sting. Of the first try gained by Leicester no one could complain; it was the result of a very smart effort by F. H. Jones, who, intercepting an opponent's pass, ran very trickily to the goal-line. Later, the same player showed that his enforced absence had not brought about a deterioration in his play, which was full of spirit, resource, and sound judgment. Coming to the second try, little can be said in its favour, unless it is by the referee. No doubt Mr. Gawley gave what he believed to be a just decision, but nevertheless it was not in accordance with what actually took place. There could be no doubt in the minds of those who were watching the play at this particular stage that the Guy's full-back properly touched down the ball before Banks reached it. The decision which followed was decidedly unfortunate for the visitors, who, however, continued to play to the end a very spirited and gentlemanly game. Team:—

Guy's.—A. C. Ransford (back); F. E. Walker, C. T. Pye-Smith, F. W. Sime, J. H. Wilks (three-quarter backs); F. C. Wetherell, F. D. S. Jackson (half-backs) R. C. Mullins, F. G. Gibson, D. H. Traill, A. A. Smith, H. A. Cutler, T. P. Thomas, F. R. Featherstone, H. V. Bagshawe (forwards).

GUY'S v. KENSINGTON.

An interesting match between the above teams took place at Honor Oak Park on Saturday, February 12th. Guy's were able to put the best team in the field which has yet played this season, the reappearance of Rae and M. C. Wetherell being very welcome. Guy's forwards went off with great dash, penning their opponents in their twenty-five. Within ten minutes of the start Wetherell scored a clever try, which Walker converted. Kensington now made a dangerous attack, passing Ransford by a long kick. Sime, however, defended cleverly and kicked into touch towards half way. Guy's were the next to attack, and from a loose scrum Walker received and dropped a neat goal. This was the last point scored up till half-time.

In the second half Guy's only scored once, through Thomas. M. C. Wetherell punted across to the left wing. Walker backed up well and succeeded in fielding the ball, which was then transferred in succession to Jackson, F. C. Wetherell and Thomas, the last-named of whom gained a try between the posts. The kick by Walker was again successful. Guy's had hard luck in not scoring on two further occasions. Wetherell, from an opening by Rae, being whistled back for a very questionable forward pass, and Sime shortly after made a fine run down the line and apparently gained a try far out on the right. The referee, however, ruled that he had previously gone into touch, contrary to the decision of the Kensington touch judge. The final result was three goals (one dropped) to nil in favour of the hospital. Team:—

Guy's.—A. C. Ransford (full back); F. L. Rae, F. W. Sime, F. D. S. Jackson, F. E. Walker (three-quarter backs); F. C. Wetherell, M. C. Wetherell (half-backs); R. C. Mullins, F. G. Gibson, D. H. Trail, A. Ayre-Smith, T. P. Thomas, H. A. Cutler, F. R. Featherstone, H. V. Bagshawe.

GUY'S 2nd XV. v. SIDCUP.

Played at Sidcup on Saturday, February 12th, and resulted in a win for the home side by three goals to a try. Both teams were well represented, and the game was fairly even, notwithstanding the score. Sidcup scored twice in the first half, and once during the second. All the kicks were successful. Pye-Smith obtained the try for the Hospital, but Morgan's kick just missed the mark. Guy's forwards all played well, and proved themselves to be a very useful pack. At half we were badly beaten, but as it was the first time Hilton and Brydone have played together, some excuse must be made. The three-quarters did not get many chances, but when they did obtain the ball, they generally made some ground. Wilkes ran well, and very nearly scored on two or three occasions. Jupp, at back, played badly at first, but improved in the second half; his tackling was not as good as usual. Team:—

Guy's.—W. C. Jupp (back); J. Wilkes, T. Morgan, C. T. Pye-Smith, J. Pierce (three-quarter backs); J. N. Brydone, C. T. Hilton (half-backs); M. D. Wood, G. Shorland, A. H. Wall, P. T. Manson, J. Harris, R. C. Lawry, D. P. Watson, K. Trubshaw (forwards).

Appointments.

CIVIL.

Lowe, Percy Rycroft, B.A., B.C. Camb., has been appointed House-Surgeon to the Derbyshire Royal Infirmary, *vice* R. S. Oliver, M.R.C.S.

Thomas, Thomas Morrell, M.D., M.S. Lond., F.R.C.S. Eng., has been appointed Honorary Ophthalmic Surgeon to the Newport and Monmouthshire Hospital, *vice* H. C. Ensor.

Young, F. C., M.B., B.C. Camb., has been appointed Medical Officer for the Twyford Sanitary District of the Wokingham Union.

Births.

DODD.—On January 31st, at 14, Goldstone Villas, West Brighton, the wife of Arthur Herbert Dodd, L.R.C.P. Lond., M.R.C.S., L.S.A., of a son.

Deaths.

CREASY.—On February 8th, at Bath, after a short illness, James Gideon Creasy, Surgeon, late of Brasted and Wratham, Kent, aged 68 years.

LUND.—On February 4th, at his residence, Victoria Road, Whalley Range, Edward Lund, in his 75th year.

Ed.—F. E. W.

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Calendar of Coming Events.

March.

Sat. 5.—1.15 p.m., Clinical lecture by Dr. Goodhart
Mr. Golding Bird's take-in; Drs., A. H. Carter and J. T. Dunston; Cl., C. R. Hodgson.
G.H.R.F.C., I., Richmond, away.
II., Kensington, away.
G.H.A.F.C., I., Beckenham, away.
II., St. Bart.'s, away.

Mon. 7.—Last day for applying for Assistant Dental House-Surgeon, also appointments from April 1st to September 30th, and for Dresserships in the Conservation Room for May, June and July.
Revision Classes for L.D.S. Eng. begin.

Tues. 8.—Meeting of the Dental Society at 4.30 p.m.

Wed. 9.—Mr. Howse's take-in; Drs., W. L. Baker and S. A. Ruzzak; Cl., F. E. Fremantle.
Application to Medical Office for Schedule for the 1st and 2nd Conjoint Exams. not later than this date.
1.15 p.m., Clinical lecture by Mr. Golding Bird.

Thur. 10.—G.H.C.U., Address by T. Tatlow, Esq.

Sat. 12.—1.15 p.m., Clinical lecture by Dr. Goodhart.
G.H.R.F.C., I., Old Merchant Taylors, away.
II., London Scottish, away.
G.H.A.F.C., II., Kenley, away.

Tues. 15.—Anatomy Exam. for 1st and 2nd Year's Prize, 2 to 5 p.m.
Final Cup Tie, Guy's v. Thomas's, at Richmond.

Wed. 16.—Mr. Davies-Colley's take-in; Drs., O. Marriott and C. F. Watson; Cl., W. T. Milton.
1.15 p.m., Clinical lecture by Mr. Golding Bird.
Physiology Exam. for 1st and 2nd Year's Prizes, 10 a.m. to 12 noon.
Meeting of Missionary Society at 8 p.m. Address by T. Jays, Esq., of West Africa.

Thur. 17.—Surgery Exam. for 2nd Year's Prize, 2 to 4 p.m.
G.H.C.U., Annual Meeting.

Fri. 18.—Last day for sending in Fees and Certificates for Camb. D.P.H.

Sat. 19.—1.15 p.m., Clinical lecture by Dr. Goodhart.
Meeting of Physical Society at 8 p.m.

Guy's Hospital Gazette,

MARCH 5, 1898.

Colitis:

A CLINICAL LECTURE BY MR. GOLDING-BIRD.

February 16th, 1898.

GENTLEMEN,—I always think that the office of clinical lecturer is one in which one may give full play to the imagination—where one is not so strictly bound down to matter of fact as is the systematic lecturer, but one speaks from the impressions the outcome of individual experience. Nevertheless, to-day there will be a method in my madness, and this method will be to prove that the colon is an organ of the body that belongs as much to the surgeon, as to the physician; and, further, that it is an organ which stands entirely by itself. I am speaking perfectly seriously when I say that the colon is to be regarded quite apart from the small intestine—that it is to be dissociated in your mind from all other organs and to be looked on as a receptacle with physical rather than chemical and physiological properties. Moreover, disease of the colon may often imitate a surgical affection, viz., fissure and painful anal ulcer. You may see the classical symptoms of the latter, and yet the disease may turn out to be really in the colon.

I will begin by reading you a case—a very sad one which came into Martha under my care. My own opinion is that the case might have been saved if we could have come to a correct diagnosis earlier. Dr. Goodhart, however, to whom I have spoken, thinks differently. The patient was a girl, aged 17, who was admitted about the middle of December, 1897, for passing blood with her motions.

Family history.—Father died of consumption.

Previous history.—Patient has had measles, etc. I think we may say—though I acknowledge I am always rather down on my clerks when they make the same statement—that the family and previous history is of no importance.

History of present complaint.—Three months ago patient began to pass blood with her motions, at first only occasionally, but the frequency has gradually increased, and now she says that she passes blood with every motion. She says that if she passes many motions per diem she passes, not blood, but slime.

You notice, gentlemen, that though she passes blood and slime, there is never any mention of pus. The blood accompanies the passage of the motion, is bright red and clotted, and in quantity about a tablespoonful. Only slight pain when patient passes her motions. The pain, though slight, was distinctly present.

Local condition on admission.—On digital examination of the rectum no piles or polypus were found, but a very lax condition of the mucous membrane was noticed. The anus was tightly contracted. I diagnosed the case as one of fissure of the anus, and recommended stretching of the sphincter ani under an anæsthetic.

Gas was administered and the sphincter stretched in an antero-posterior direction by the thumbs. Next morning patient was in little pain; whilst up for a short time she fainted. Here I might mention that though patient was an anæmic, sickly looking girl, with flabby muscles, in fact, a typical Londoner, yet she was quick in her movements and not at all like a subject of serious bodily disease. To resume the report once more. Patient continued passing blood with her motions and suffered from slight diarrhœa, also from vomiting, which was not easy to check.

On December 30th there is an entry to the effect that I saw patient that afternoon, and found on abdominal palpation that there was considerable pain over an area corresponding to the ascending transverse and descending colon; there was not much pain elsewhere. Dr. Pitt saw patient in the evening and thought that the mucous membrane of the rectum was rugose, inflamed and œdematous. He thought the patient had at present peritonitis, which may possibly be an extension from an original colitis. The temperature that evening rose to 102·5 and 103, and the next day, the 31st, I again saw patient, but did not consider that her condition justified any surgical interference. Later on, however, that evening, patient became much worse, and Mr. Dunn was sent for; he advised instant removal to the theatre, as he thought that there was perforation of the intestine and consequent acute suppurative peritonitis. There is no need to go into the details of the operation. An abdominal section was performed, but only a few flakes of lymph and a little clear fluid were found; there was no actual perforation. Patient was put back to bed, but never rallied from the operation, and died at 9 a.m. the next morning, January 1st.

The post-mortem examination disclosed the most extensive ulcerative colitis one could expect to see. There were ulcers all over, and the mucous membrane was undermined as it is in this specimen, where you see rods have been pushed under it.

Before proceeding any further, there are one or two things that I want to say about colitis from a surgical point of view. please bear in mind—strictly from a *surgical* point of view. There is one form to which Dr. Hale White has paid great attention (you will find his observations in Vol. XXX. of the Guy's Hospital Reports, 1888; they are well worth reading), which is called a "simple" ulcerative colitis. It is perfectly distinct from dysentery, with its rice-water stools and its history of residence in the tropics, but the post-mortem appearances are so similar that pathologists will not always venture on a diagnosis without previously hearing the clinical history of the case.

Now this form has to be distinguished from the follicular form, and, as far as I can make out, physicians often find great difficulty in the discrimination of the two; in each case one finds pain over area of colon, vomiting, diarrhœa, and the passage of blood and slime with the motions. One thing, however, I learn from physicians, is regarded as a distinctive sign, which is, that in the follicular form there is often a history of tubercle, not that the lesions are tubercular, but it is a curious fact which Dr. Hale White has recorded, that this particular form of colitis affects delicate people, and usually those with a bad family history. Post-mortem one finds no evidence of tubercle in the ulcers; you will notice that in this case there is a very decent family history, as family histories go. Another point is that the colon in these cases discharges not only blood and slime, but pus, not such as comes suddenly in large quantities from an ischio-rectal abscess, but in sufficient quantity to be recognisable as such by the patient. The disease affects the lymphatic solitary follicles in the large intestine, and causes multiple ulcers, which are seen post-mortem to be fairly punched out, and with good margins. To summarize the matter, in the follicular form there is pus in the motions and a bad family history, it occurs

mostly in adults of middle age, and in men rather than in women.

Ulcerative colitis seems very hard to cure by drugs, and Dr. Hale White speaks badly of the prognosis. In Fagge's Medicine, you read the same. You see I am making it out bad for the physicians, because I want to get these cases over on the surgical side. Now, our patient was a typical example of the simple form of ulcerative colitis, and I asked Dr. Goodhart how he classified cases of this sort, and he says that he recognises two forms, the one of acute cases which die in three weeks—he sees many of these—and the other are more chronic cases which get better and worse, but eventually die out from general illness, or from perforation or peritonitis. Our case clearly belonged to the acute variety, hence, had we operated we might not have saved her.

Besides these two forms of ulcerative colitis, the simple and the follicular, there is a third form of colitis concerning which I have another case to talk to you about; this is the membranous form, but before giving you the symptoms, I will read out the case. But first, I wish to traverse a point which Dr. Hale White gives, and which Dr. Goodhart made a strong point of when I talked to him on this subject.

What they insist on is this: that much wasting and cachexia occurs in ulcerative and in membranous colitis, and is due to the stoppage of its digestive and absorptive functions by the disease. If this were true, then surgery could not help these cases, for the surgeon desires deliberately to remove the colon, for the time, from all functional activity; but I look on the large intestine as mainly physical in its use; as a receptacle for the fæces and an absorber of water. Also Treves has drawn attention to the fact that the liability to peritonitis varies in different parts of the peritoneal area; thus, the peritoneum covering the pelvic organs is very insensitive; although women suffer so much from pelvic troubles they don't die of peritonitis. Then comes the peritoneum around the colon, especially about the caput coli, whilst the peritoneum which, when inflamed, depresses and kills the patient most quickly is that of the small intestine; that covering the colon in its various parts is fairly callous.

Further, I believe that the large intestine is more intimately connected with the higher centres than is the small. One is quickly conscious of anything wrong with the large intestine. Thus, supposing it gets clogged up with two day's contents, one speedily becomes aware of a feeling of uneasiness, a sensation of fulness and distress which the general public ascribes to the liver. The doctor gives a purgative and the "liver" is quickly cleared.

I have for a long time taught that you will only get cachexia in cancer when it occurs in a place where the patient is constantly reminded of its presence, as cancer of the lip, tongue, rectum, etc., or where it causes a sapræmic condition, or where some great function is interfered with. Similarly the wasting or cachexia of colitis is due to the "worry" of the disease rather than to any interference with its functional activity.

After these general considerations, I must mention that there is a capital case of membranous colitis in the medical wards at present, under Dr. Pye-Smith, whose ward-clerk, Mr. Barron, has been kind enough to write me out an abstract of the report. In this form of colitis, women are more often attacked than men, the opposite to what occurs in ulcerative: the patients are usually young, under thirty; they are nearly always neurotic, very frequently the subjects of ovarian pain. The symptoms usually commence by constipation, accompanied by grumbling or growling sensations in the belly, probably due to wind; these sensations the patients themselves put down to indigestion. Next one finds pain in the lateral parts of the belly, and then they commence to pass membranes, at first merely strips, and, later on, perfect gas-pipes. There is intense pain in the descending colon just before the bowels act, and here one must distinguish carefully. Sometimes the patient says that she experiences pain when she goes to stool; you must enquire carefully whether it hurts while the motion is actually being passed, or before the act of defæcation.

This patient, Laura B., æt. 31 years of age had acute rheumatism 13 years ago; 12 years ago she had a child.

History of present illness.—Fifteen months ago patient first felt pain in epigastric region; it was not very severe, but has lately become much worse; the attacks have lasted from an hour or two up to two or three days. Patient has at times been so bad as to have to keep to her bed; lying in bed has always eased the pain. The pain used to come on after food—solid food always made it worse; for the last twelve months patient has been on slop diet. During the whole time patient has been constipated; there has never been blood in the fæces; there has been no vomiting.

On admission.—Dec. 15th, 1897. Abdomen flaccid; fair amount of subcutaneous fat. Patient complains of severe pain, chiefly situated below

the umbilicus and the epigastrium, but spreading all over the abdomen and up to the chest. Tympanitic note on percussion. Patient was put on milk diet, and an enema was given, which brought away thick mucus and some shreds of membrane, but very little fæces. Injections of silver nitrate were tried, but patient still continued passing large quantities of dark membrane.

The patient is now being kept on arrowroot, etc. She is better, but the treatment has not yet stopped the formation of membranes. She is sufficiently bad not to be able to follow her occupation; and the mischief is entirely confined, as far as we can tell, to the colon. Therefore, I am keeping my eye on this patient as a likely one to be benefited by surgical interference, but I must first justify my proposal by telling you of a case treated surgically. It was a fairly typical case of membranous colitis admitted into Martha on May 17th, 1897. It was really a private case which I was called to see by Dr. Taylor, an old Guy's H.-S., at Acton. The woman had been abroad a great deal, but had never had dysentery. She was now 41, and had suffered since the age of 16—there's chronicity for you! She describes herself as having been sometimes better and sometimes worse, and when she was worse she had what she calls "attacks of membrane." She had constipation and pain, especially just before the bowels acted. She was thin, spare and very neurotic. These details are from my own private notes of the case.

I will read you out Mr. Meachen's notes of the case, which are the more valuable as I am not aware that I in any way primed him up as to what to ask. This, then, is the story: Patient has suffered from constipation and impaired digestion all her life. About twelve years ago, definite casts of membrane were observed in the motions. They were often 18—20 inches long, perfect in shape, with sometimes a swelling at one end, "like the head of a snake." They were always larger and firmer in frosty weather. Sometimes they were slightly streaked with blood. Great pain has been experienced, following exactly the track of the large intestine; the pain has sometimes been present continuously for a week, and only checked by large doses of morphia. There has been a good deal of sickness throughout. On a few occasions she has had attacks of œdema of the sub-cutaneous connective tissue, beginning in the calves of the legs with a kind of warning sensation, and gradually spreading upwards to the abdomen, chest and head. These would last about a week, patient keeping to her bed during the time. Six years ago, her doctor made an examination under chloroform, and concluded that nothing could be done under the circumstances. In May, 1896, she consulted Dr. Hale White and Mr. Golding-Bird. It was then decided that the best way of affording complete relief to the large bowel would be to perform a right lumbar colotomy, and this was accordingly done by Mr. Golding-Bird. The operation was quite successful, the pain being greatly diminished and the passage of casts being now unknown.

I must own that I was not the first to suggest a right lumbar colotomy with the idea of cutting the large bowel completely out of the physiological circuit, the operation had been done for this purpose by Keith, but Dr. Hale White and I brought a case before the Clinical Society first in December 1895. To resume our story, the patient got fat and well after our cutting the large intestine out of functional activity, which is a very strong argument against the view that the large bowel is an organ of great vital importance.

On the morning of the operation, much membrane came away; we did the colotomy in two stages. On the first occasion we attached the bowel to the parietes, and on the sixth day after that we opened it. On opening, much soft fæces came away, but the mucous membrane looked healthy and no bleeding points could be seen. We washed out the bowel both ways, that is, from the wound to the anus and *vice versa*, with some mild antiseptic. Not a scrap of membrane came out in the washings, though she passed a great deal on the morning of the first part of the operation. And here is another very curious point. After the attachment of the intestine to the wall, but before it was opened, the bowels were moved several times by enemata; there was great pain, but *no membrane*. Why should the formation of membranes cease after the attachment?

It really would seem as if the process were neurotic, and that the formation of membrane was upset by the manipulation of the bowel. We have observed the same thing in another case. Before the sixth day each motion caused severe pain; but this ceased as soon as the opening was made. Progress was perfectly normal, and the relief was complete. She continued perfectly well from May to November, when she said she was passing small membranes by the operation wound. Of course, these might have come from the head of the cæcum, which was really behind my opening, but I thought it was very

doubtful. On February 29th, 1897, she came complaining of pain, and desired to have the operation wound closed. I still hesitated, because she said she was still passing a little membrane. As to the pain, I began to fear lest the former trouble had come on again, but on examination I determined that the pain was entirely ovarian in character, though I was uncertain whether there might not be some in the descending colon. To return to our report.

Condition on admission.—Patient is of a highly neurotic disposition. Temperature and urine are normal. Patient declares that casts are only passed after a dose of castor oil, none appearing when the bowel is washed out. This time they are more gelatinous in character and less coherent, being generally only shreds. The motions pass chiefly through the colotomy wound, only at times a small quantity finds its way down the natural passage. The pain felt now is lower down in the abdomen, and patient calls it "ovarian." On the 18th we gave her some liquorice powder, to see the effect. The note states that the motions came away almost entirely by the colotomy wound, very slightly by the natural passage. No casts could be detected in the motions at all. The colotomy wound was examined with an electric lamp. Nothing abnormal could be found about the mucous membrane, which appeared quite healthy. As to the patient's statement of membranes appearing after a dose of castor oil, we tried giving her a dose on the 20th. On the 21st, it is noted, the castor oil acted twice. On carefully examining the motion, minute membranous shreds and straw-like particles were found, exactly as the patient had foretold! On submitting these to microscopical examination, the straw-like particles were seen to be ordinary vegetable fibre, whilst the other white shreds consisted of a homogenous matrix of gelatinous consistency with a few scattered fibres embedded in it. On the 25th I closed the wound. I detached the lips from the parietes till I could pull out the best part of the circumference of the bowel. I then put in a Czerny-Lembert suture to bring raw surface into contact with raw surface. The patient got perfectly well, and as far as I know has continued so to the present day. Both in this case and in that which we published in the Clinical Society's Reports (1895), Dr. Hale White and myself had the idea that after the operation we ought to use drugs, antiseptics, etc., to improve the state of the bowel, but we found it unnecessary, the complete physiological rest having cured the disease.

The latter case (of 1895) lived, however, only a few weeks after closure of the bowel. She died in the country from acute peritonitis which supervened suddenly. She had been perfectly well in regard to the state of the colon: we believe the peritonitis was caused through the bursting of a suppurating pelvic gland of the presence of which we had known for some time. These are the only two cases of colitis of which, at present, I have had the opportunity of performing right colotomy, the object of the operation being, as I have said, to remove the large bowel from all functional activity, to give it physiological rest, and to enable the surgeon to apply lotions, if necessary, by injecting them in on the right side, and letting them make their exit at the anus. In both my cases this irrigation was carried out with warm boracic lotion as long as colon tenderness remained, but this was only for a few days.

The suggestion that I have to make is, that not only is right colotomy the scientific step towards cure of membranous colitis, when chronic, and when it has resisted medical treatment, but that it should be employed also in the non-membranous ulcerative forms of colitis, except, probably, the very acute cases, and those that depend upon some general state of the health, as pyæmia. As yet I have not had the opportunity of putting this last suggestion into practice, but I feel convinced of its soundness, as well as of the advisability of giving complete rest to a chronically ulcerated colon, the prognosis as matters now stand, being in the long run, almost always a bad one.

In conclusion, gentlemen, let me in a word justify my opening remark that colitis might simulate painful rectal ulcer, which is in itself a purely local affection.

I have already mentioned the poor girl's case of acute colitis, who was admitted under my care for apparently rectal fissure, and treated as such: and only a short time back I saw another case which deserves mention. I was asked to operate on a healthy, powerfully-built gentleman, who was suffering downright agony from a painful anal ulcer. I examined him and there was the ulcer, but no "sentinel" pile—an almost necessary accompaniment of the purely local anal ulcer. In due course I operated, and when under the anæsthetic I found in the rectum some three inches up, another ulcer, which was punched out and altogether like a "follicular" ulcer. I divided fibres of the sphincter and scraped both the ulcers, and the case so far has done well; but I learnt after, that though the painful anal symptoms

had lasted but a fortnight, he had for about two years had "wind" and "indigestion," and on palpation marked pain could be elicited along the transverse, but especially the descending, colon.

What I would ask in connection with these two last-mentioned cases therefore is, do not surgeons sometimes treat as local, ulcers of the anal part of the gut, which, after all, are but the lowest of a series of ulcers of the rectum and colon? And if this is so, it is tantamount to saying that ulcerative colitis may simulate anal ulcer, and that where appearances do not quite accord with what is usually expected in the local anal ulcer, the past history should be carefully investigated, and an examination by palpation of the abdomen be carried out to try and determine the condition of the colon.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Circulatory System.

Mary	19, 33, 31.	Mitral stenosis.
	22, 27.	Mitral regurgitation.
	39, 46, 49.	Chlorosis.
Philip	19.	Infective endocarditis.
	31.	Aortic obstruction. Mitral stenosis and regurgitation. Fractured scapula. Fit.
	34.	Mitral stenosis and incompetence.
Stephen	2.	Aortic aneurysm.
	7.	Aortic regurgitation.
	26.	Mitral stenosis and regurgitation. Tricuspid regurgitation.

Nervous System.

Mary	28.	Cerebral tumour. Optic atrophy.
	30, 47.	Myelitis.
	37.	Neuritis. Plumbism.
Philip	7.	Chorea.
	20.	Myelitis. Paraplegia.
	30.	Chorea.
Stephen	25.	Multiple neuritis. Mitral stenosis.
	32.	Chorea. Mitral stenosis and regurgitation. Aortic regurgitation.

Alimentary System and Abdomen.

Mary	5.	Carcinoma of sigmoid. Colotomy.
	13.	Gastric ulcer.
	17.	Ascites. Cirrhosis of liver. Enlarged spleen.
	20.	Hæmatemesis. Enlarged spleen. Cirrhosis of liver.
Mary	21.	Hæmatemesis. Gastric ulcer.
	50.	Sarcoma of pelvis.
Philip	25.	Dilated stomach.
	32.	Gastric ulcer.
	33.	Appendicitis. Sixth attack.
	40.	Ascitis. Carcinoma of liver.
Stephen	14.	Pyloric growth. Operation Jan. 18th.
	33.	Appendicitis.

Genito-Urinary System.

Mary	7.	Moveable kidney.
	10.	Ovarian cyst.
	11, 26.	Chronic tubal nephritis.
Philip	3.	Hypertrophied and dilated heart. Chronic nephritis.
	4.	Chronic nephritis. Chronic atrophy.
	5.	Diabetes mellitus.
	6.	Acute nephritis. Albuminuric retinitis.
	17.	Chronic tubal nephritis. Congenital opacity of nerve fibres of retina.
	27.	Bright's disease.
	29.	Bright's disease with glycosuria.
Stephen	1.	Acute nephritis. Hæmaturia. Apical systolic bruit.
	16.	Diabetes mellitus.
	28.	Acute Bright.

Respiratory System.

Mary	12, 44.	Phthisis.
	18.	Chronic bronchitis.
	41.	Chronic pneumonia.
	45.	Pneumonia.
Philip	1, 12.	Empyema.
	8, 18.	Pleuritic effusion.
	9.	Phthisis.
	13.	Laryngeal stenosis. Tracheotomy.
	26.	Empyema (left chest).
	28.	Acute bronchitis and emphysema. Albuminuria. Systolic murmurs
	35.	Right empyema (spontaneous opening).
	36.	Cirrhosis of lung.
Stephen	5.	Emphysema, bronchitis, enlarged liver, dropsy and purpura.
	13.	Bronchitis. Albuminuria.
	17.	Bronchitis. Emphysema.
	24.	Pleurisy. Influenza.
	30.	Phthisis and hæmoptysis.

Miscellaneous

Mary	1.	Osteo arthritis.
	25, 42.	Exophthalmic goitre.
	31.	Eczema.
Philip	10, 22.	Psoriasis.
	38.	Myxœdema.
	39.	Acute rheumatism. Systolic apical bruit.
Stephen	6.	Appendicitis. Perforation. Operation January 31st.
	8.	Influenza.
	34.	Enterica.
	Cot.	Pneumonia. Whooping cough.
	40.	Enterica.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman 1. Infantile paralysis. Knee previously excised. Syme's amputation proposed.
10. Prostatic hypertrophy.
15. Undescended testis. Removed.
Charity 9. Growth in pelvis, invading rectum. Lumbar colotomy.
18. Talipes equino-varus. Tarsectomy.

Cases under Mr. Davies-Colley.

Luke 8. Stricture extravasation. Death.
9. Arthritis of left shoulder and elbow. ? Syringomyelia.
10. Tuberculous periostitis of fibula.
20. Strangulated femoral hernia.
Lydia 6. Excision of ankle. Ankylosis in bad position.
8. Fractured femur.
18. Transferred to Clinical P.R. Fibromyoma of uterus. Oophorectomy, double.
21. Fall. Hæmaturia.
Cornelius 1. Compound fracture of jaw.
12. Fractured base.
14. Pott's fracture.
15. Crushed legs. Double amputation.

Cases under Mr. Lucas.

Job 1. Double inguinal hernia.
2. Undescended testis.
3. Morbus coxæ.
9. Epithelioma of penis. Total amputation of penis.
16. Stricture.
17. Recurrent epitheliomatous glands in neck after excision of tongue.
18. Ununited fracture of patella.
20. Appendicitis. Appendix removed. Fæcal concretion.
22. Inguinal hernia. ? Into patent funicular process.
Lydia 11. Chronic lobular mastitis, becoming cystic. Partial removal of breast.
15. Moveable kidney with ovarian tumour.
Charity 5. Rectal prolapse.
22. Tuberculous ankle. Erased. Recurrence.
23. Ankylosed knee.
Cot B. Ununited fracture of tibia.

Cases under Mr. Golding-Bird.

Lazarus 14. Undescended testis.
21. Hæmaturia. ? Villous tumour of kidney.
Martha 2. Antral empyema.
3. Tuberculous dactylitis and glands in neck.
16. Membranous colitis. Right lumbar colotomy.
Martha 18. Anal ulcer.
Cot A. Tuberculous shoulder. Erased.

Cases under Mr. Jacobson.

Naaman 20. Carcinoma recti. Inguinal colotomy.
21. Ankylosis of knee with flexion forward after excision.

Cases under Mr. Symonds.

Job 10. Hallus flexus.
Luke 17. Ununited fracture of olecranon. Screwed.
Martha 13. ? Tuberculous knee.
15. Cleft palate.
Patience 1. Mammary abscess.
2. Supra-mammary abscess.

Cases under Mr. Lane.

Job 15. Appendicitis. Appendix removed.
Dorcas 4. Recurrent appendicitis. Appendicectomy.
5. Malignant disease of gall-bladder.

Cases under Mr. Dunn.

Lazarus 1. Necrosis of humerus with ankylosis, following arthritis (streptococcal) of elbow and shoulder. Sinuses persisting.
Martha 10. Tuberculous ulceration over breast.
11. Recurrent carcinoma mammæ. Hæmorrhage.
Samaritan 9. Tertiary ulceration of leg.
10. Erysipelas of arm.
Patience 3. Tuberculous dactylitis.

"Clinical."

John 1. Gangrene of lung.
3. Chronic Bright.
4. Malignant growth of intestine. Double resection. Convalescent.
5. Abscess of abdominal wall.
7, 10. Appendicitis.
8. Chronic bronchitis and empyema.
11. Angina pectoris.
12. Diabetes mellitus.
13. Gastric ulcer. Six hours' perforation. Operation. Convalescent.
14. Immersion.
16. Peritonitis, following appendicitis. Operation. Convalescent.
Miriam 17. Acute rheumatism. Double aortic disease. Flint's bruit.
18. Carcinoma of stomach. Secondary deposits in liver and lungs.
19. Enterica.
20. Fibroid phthisis. Tricuspid regurgitation. General anarsarca.
21. Enterica.
22. Appendicitis.
23. Multiple sarcomata.

Miriam	25.	Mitral disease.
	26.	Chorea.
	27.	
	29.	Lymphatic obstruction.
	30.	Double mitral disease. Tricuspid stenosis.
	31.	Leuchæmia.
	32.	Double pneumonia.
Cot	33.	Broncho-pneumonia.
	34.	Laryngeal obstruction. Tracheotomy.
	35.	Tetany.
	36.	? Cerebral abscess.

The Great Plagues of History.

By M. F. Carson, M.D. Griffin, Ga., U.S.A.

(Concluded.)

Second.—The Nature and Characteristics of the Plague as a Distinct Malady.

A disease which has cast such a baleful shadow across the long centuries of human history certainly appeals with unwonted power to the interest of all. No other affliction, except perhaps that of war, has played so important, though sad and fatal a part in the great drama of human existence.

Unfortunately for us the descriptions of the epidemics which occurred prior to the present century were for the most part the work of laymen. Or, if now and then we come across an account transmitted through some medical observer, he has nearly always been a physician markedly deficient in scientific culture. In this way we can glean only a partial and confused account of the ancient visitations of the plague. This is equally true of those which appeared in the middle ages. We find numerous descriptions of the effects upon society, but very meagre accounts of the actual appearances of the disease in the unfortunate victim seized within its fatal grasp. But we have sufficient data, gleaned here and there from the accounts of laymen and physicians, to enable us to form comparatively accurate notions with regard to the nature of the plague, if we are willing to take the trouble to collate the evidence and systematize it into a definite form. This is the object in what is now to follow.

The references contained in the old classical historians, although representing the opinions and observations of non-professional men, are still quite sufficient to enable us to recognise the ancient epidemics as identical with the plagues recorded in mediæval and modern times.

The most important fact to be noted at this point is that the plague is a distinct, separate, unique disease. It is not, as supposed by some, merely an exaggerated outbreak of the cholera, smallpox, or some other of the more familiar epidemics of the present day. Almost every adequate authority joins in the belief that the plague is as individual and separate a malady as is diphtheria, tuberculosis, or leprosy. It is not desirable to discuss this point at length in such a paper as this, since it more properly concerns the disputes which are controverted among members of the medical profession alone. But the facts yet to follow, which are of a nature to be understood by all, will doubtless leave an impression upon almost every mind that the plague is certainly widely different from any of the diseases with which we Americans have ever come in contact. Each reader can thus draw his own conclusions from the description of the plague as to its effects and phenomena in the human body, as to whether it should be regarded as a distinct and peculiar malady.

The first accurate description of the plague which we have had in modern times was that presented by the French in Egypt, and by Surgeon Colville on the *Volga* and *Euphrates*.

During the years 1833 to 1845 a corps of French physicians was sent out by the government to make a careful and scientific study of the plague, which was then ravaging Egypt and other portions of Africa. Their reports, together with the observations made by Colville on the plague which broke out in 1878 and 1879 on the *Volga* and *Euphrates*, contain information sufficient to satisfy any candid mind, or any seeker after information relative to this dreadful scourge.

First. *The Causes of the Plague.*—We are confronted with the difficulties which one is prepared to expect beforehand when we attempt to trace out the ætiology or causation of the pestilence. From a careful comparison of authorities, ancient and modern, we are convinced that the Plague cannot be referred to any distinct causative factor with the same satisfaction which we feel with reference to the majority of other diseases. Of course, I am now speaking of the actual, visible, perceptible causes, those which create the influences in connection with which the special germ, immediately producing the disease, is developed. In the light of modern research, there can be no doubt that this malady, in common with all other epidemic disorders, is immediately produced by the lodgment of some special germ, or microbe, in the human organism, which multiplies with greater or less rapidity, dependent upon the surroundings as favourable or unfavourable to their development and growth.

This cause is here taken for granted. But it is of great practical interest, as well as importance, to know what conditions of life are also favourable to the production of the plague.

As hinted in the introduction, not only the treatment, but also the prevention of this dire disorder, must necessarily depend in great measure upon the success with which the details of its causation are mastered, especially by the physician.

The most obvious and important factor in the production of the Bubonic Plague is poverty with all of its attendant evils.

The filth, uncleanliness of person, poor drainage, bad food and improper hygeine in general, all of which appear more or less in the life of those subjected to great and continued poverty, are powerful agents in the production

of Plague This fact is evident from the prevalence of this epidemic in those countries where the severest poverty has been known to exist. Thus Egypt, India, and some parts of Russia have been from time to time the favourite abodes of the Plague. Now, it is a notorious truth that in these same countries, the condition of the poor is most wretched indeed. Not only is there an absence of all nutritious food, but their surroundings are filthy and unhealthful beyond description. These things, in connection with their personal habits, never bathing from one year to another, and living with an utter disregard for the simplest and most fundamental laws of hygeine, render them peculiarly susceptible to this disease. This connection between poverty and the Plague is more than accidental. It has been noted and commented upon by many of the oldest observers of this mysterious malady.

It has appeared with such persistency in those countries, which like some parts of Asiatic Turkey, press severely upon their peasantry, that we can no longer doubt that there is the relation of cause and effect between the poverty found among the oppressed people and the outbreak of the pestilence among them.

It has also been noted that in the countries mentioned numerous famines have occurred from time to time. In many instances these long continued famines— which are but the concentration of years, it may be of ages, of poverty—have been immediately followed by a violent outbreak of the Plague.

In this very fact we find an answer to the question, Why should the Plague be so severe in its ravages and so frequent in its appearance during the earlier centuries and the Middle Ages, while in our times it is almost extinct?

On account of the frequent wars draining the countries of all able-bodied men, the soil often went without sufficient cultivation in the past to provide against a year of drought, which led to the failure of even the scanty supply which each year had been accustomed to produce. Famine would inevitably result.

This condition of affairs has long ceased to exist, at least to any extent; in civilized countries famines rarely occur.

It is significant that the Plague has simultaneously disappeared from civilized communities, and is remanded to those countries where famines still occur, chiefly however, from some error in the method of government or a failure to appreciate the true laws of political economy. But too much importance must not be ascribed to famines in the production of the Plague. The other and more usual results of poverty have had quite as much to do with the appearance of the scourge. Indeed, famine without the filth, bad drainage, and general disregard for personal hygeine met with in the midst of extreme poverty, could not produce the pestilence. Its disappearance to-day from civilized communities is due not only to the disappearance of famine, but also the gradual, though wonderful improvements in all the surroundings of the social life. When we consider the vast improvement of the present age over Mediæval and Ancient times in the cleanliness of our surroundings, in the marked preference for the bath which is shown in our times, in our excellent systems of house, town, and city drainage, we understand at once why the Plague has disappeared. In referring to the condition of European and Asiatic cities during the Middle Ages we wonder that there was not even more of disease than really existed.

They practiced no drainage systems whatever and their cities were inconceivably filthy. In personal hygeine they were no further advanced. They rarely ever bathed. Instead of using water and soap to remove the accumulations upon the skin of their persons, they resorted to the use of perfumes to conceal the odours of uncleanliness. They believed in deodorants rather than in disinfectants. We have reversed the practice, and use disinfectants to destroy filth instead of deodorants to conceal it. What has been said about the uncleanliness of the cities of the past, will be readily appreciated by any one travelling in the Orient to-day. The cities of the East have not made corresponding progress. They are still where the cities of Europe were several centuries ago. The people of the greater part of Asia live in the midst of surroundings, which to us seem full of disease and death; no drainage, no scavengers other than what nature has supplied, and a blind confidence is exhibited in the bright sun alone, which is the only thing that does protect them from the effects of their loathsome environments. If such a condition of things exist in the glorious light of the nineteenth century, the supposed realization of the utmost dreams of the sanitary philanthropist, what must have been the actual condition of things in the twelfth century?

It is thus clear that an understanding of the conditions of life in the past, which served to bring about outbreaks of the plague, must serve to emphasize the view already expressed with reference to the causative relation which poverty bears to the appearance of pestilential disorders.

Again, we may mention WAR as a cause, and an important one, too, in the production of bubonic plague.

Some of the worst epidemics in history have appeared after a series of sanguinary battles, which have left thousands of unburied corpses upon the field of conflict. These unburied victims, decomposing in the sun, tainted the air for leagues around, and a pestilential septicæmia was the inevitable result.

The very fact that the plague is characterised by discharging buboes, indicating some morbific poison working in the blood, proves conclusively that this tainted air was an important factor in the production of pestilential outbreaks. These discharging buboes led to the designation "bubonic plague."

Just as an unfortunate wound in the dissecting room, or in the performance of a post-mortem, entails upon the victim all the horrors of blood-poisoning, with its pyæmic and septicæmic manifestations, so in the case of those exposed to the influence of an atmosphere tainted by thousands of decaying bodies, there would naturally

result a similar poisoning of the blood, manifesting itself, however, in far more disastrous ways.

But notwithstanding the fact that these influences mentioned, so evidently bear an important causative relation to the plague, yet it must be admitted that they are not the only causes.

There is something mysterious and incomprehensible in the whole question of its causation, and there remains yet much for the skill and science of future generations to unravel.

But if the causation of this fearful malady is so obscure, the second division, or the abnormal appearances of the bodies of its victims presents us with even more negative results. But we will consider for a moment this aspect of the question and see what different observers have said concerning the

Second.—*Pathology, or Abnormal Changes produced in the body of the victim seized with the Plague.*—Post-mortem examinations have shown a general resemblance to death from typhus fever. But unlike typhus, in this disorder there is a marked affection of the lymphatic glands, which is entirely absent in the victims of typhus. Also the lungs, brain and right side of the heart have been almost always found distended with blood. The blood itself manifests the peculiarity of a rapid decomposition, pointing to the presence of some definite blood-poisoning, as is seen, for example, in the blood of persons dying from anthrax or malignant pustule. The blood is also very dark in colour. The spleen and liver show a marked hypertrophy, and this enlargement of these organs again illustrates what was said with reference to the presence of some very active poison in the blood. One of the most peculiar appearances in this disease is the presence of numerous petechiæ, or patches of dark blood, over the surface of the body caused by the extravasation of blood beneath the skin. The extent of such blood patches varied in different epidemics of the plague, but they seem to have always been present to some extent, no matter how mild the outbreak. When the plague received the name of the "Black Death" this formidable appearance was more marked perhaps than ever before. It is certain, however, that it was to the presence of these petechiæ that this designation owed its introduction into common use. I should add that this extravasation of blood beneath the skin only appeared in those cases in each epidemic in which the attack assumed a fatal form. But this will be referred to again under the head of symptoms, to which division we will at once pass along.

Third. *The Symptoms of the Plague.*—Fortunately for one interested in this subject there is no lack of evidence, or rather of descriptions, of the symptoms of this fearful disorder. Each inquiry in this direction meets with abundant answers. The symptoms, as described by the oldest observers of the earliest authenticated visitations of the plague, are found to be identical with those most recently described.

Indeed, it is this striking coincidence in description which warrants us in regarding the pestilential outbreaks in history as a continued succession of the same fatal malady. Writers upon this subject have divided the plague into pestis minor and pestis major, this classification being based upon the violence in the symptoms, rather than upon any radical difference in the real nature of the disease. In the minor form of the plague pestilential buboes are noted, giving rise to the term bubonic plague, since these buboes are initial, and therefore characteristic symptoms. Marked swellings early appeared in the groin, armpit, and in various other glands throughout the lymphatic system. Little or no fever was present in this milder variety, and the general or constitutional disturbance was very slightly marked.

But in the graver form, or pestis major, in addition to the symptoms already mentioned, more formidable ones were always observed. Thus, the invasion of the disease would be very violent and sudden, and usually ushered in by a severe chill, accompanied with frightful pains in the back and in the upper and lower extremities. These introductory symptoms were soon followed by a profound nervous prostration which oftentimes amounted to absolute coma. But if this tendency to unconsciousness was absent, the nervous disturbance assumed the form of an uncontrollable anxiety. The victim's mind would dwell upon the darkest fancies, picturing to itself the most hideous illusions.

These fantastic visions might be either grotesque or horrible, but in the latter case reason was often hurled from her throne by the awful nightmares of thought with which the loathsome pest weighed down the brain of the stricken man.

Great bodily restlessness was frequently observed, together with dizziness, great thirst, extreme headache, and a deep-seated pain in the region of the stomach. The eyeballs were swollen, the conjunctive fiery red, while the tongue was greatly enlarged, dry and black, although some report having seen cases in which it became very white instead. A short time before death occurred the collection of blood-patches beneath the skin above referred to would take place. The appearance of this symptom was always regarded as a sign of a speedy and unavoidable death.

Again, hæmorrhage often took place from the lungs, and this also was looked upon as a very dangerous sign.

As to the length of the course which the plague usually ran, it depended upon the form, as to whether it was pestis minor or major. In the minor form the disease ran its course in from ten to sixty days, and recovery almost always took place; but in the major variety the course varied from a few hours to thirty days. It was usually fatal, however, on the fourth day; but if the patient survived the sixth day there was then entertained every hope of his recovery.

Such, in brief, is the description of the general characteristics of this awful malady. If one truth stands out clearer than all the rest, it is that the plague must be regarded as a distinct, unique disease—one, too, in the presence of which the most gifted and brilliant physicians of the ages have stood awed and trembling as

in the presence of a mysterious scourge sent by an avenging God to chastise the nations of the earth.

Its occult nature has never yet been fathomed, and we still view it with indescribable fear—such fear as no other of the dread visitants of humanity can excite. We can rightly boast of specifics in the treatment of some disorders, or at least of an ability to master their difficulties, but we have nothing in the whole range of our medical resources by means of which we can successfully meet and crush this powerful enemy of man.

This brings us to the fourth and last division of this subject, which is:—

Fourth. *The treatment and possible prevention of the plague.*—The most that can be done and all that ever has been done in the way of treatment is the use of remedies to alleviate the symptoms as they appear. It is impossible to treat it in a rational manner, since we do not understand the source of the disorder. Temporary relief may be afforded from some of the more violent suffering, but the disease runs its course entirely unchecked by anything we can do. It is thus evident that nothing can be said about any scientific treatment. Of course, the physicians of the past instituted different lines of treatment depending upon the individual judgment of the medical attendant, when there was one. But in this they merely followed, as above pointed out, the suggestions which special symptoms indicated.

Farther than this they did not and could not go. In fact, this disease has been chosen in great part because of its being a perfect illustration of our helplessness in the presence of a malady which has ever baffled the loftiest human skill. It certainly teaches humility in the presence of a power, whose strength can only be measured by a just appreciation of that Might which is enthroned in the heavens, exhibiting itself to a wondering world through frequent visitations of wrath in chastisement of the frailties of man. But there is hope in the midst of our very helplessness. Our inability to cope with such a disease forces us to take refuge in what is called preventive medicine.

If we cannot cure a given malady, it may be possible at least to prevent its ravages by improving the conditions of human society. Is it possible to prevent the outbreak of the plague?

This question has been asked for more than a century, and it has already received a definite answer in the affirmative. When we contemplate the frightful ravages of this scourge of the nations we are compelled to admit that in the crushing out of the plague from civilized communities the grandest triumph of the century has been achieved. When I say the grandest I include all the possibilities with regard to all other deadly epidemics which such a victory opens up before the medical profession.

The plague has been so far conquered by the gradual improvement in the sanitary condition of the countries of Europe.

Its last lingering germs seem to have been finally destroyed in England by the great London fire, and in Constantinople as late as in the beginning of the present century, by the providential conflagration which so nearly destroyed the whole capital of the Moslem world. The efforts of the century have been along the lines of purifying the lives and homes of men. Take this work in connection with the efforts towards a more perfect town and city sanitation, and the key is given to the puzzle of doing away with not only the plague, but also in time with the other dangerous foes to human life. If the plague, so deadly, so malignant, so rapidly fatal has been conquered, what can we not expect with reference to the other epidemics which afflict modern life? No victory now can be great enough to occasion even surprise, for the victory already gained transcends even the possibilities of the future.

St. Margaret's Amateur Dramatic Club.

A new Club has recently been formed with the above high-sounding title. It comprises within its ranks not only local members, but, by the enterprise of its prime mover, Mr. E. H. Paterson, representatives of Guy's and of most of the other London hospitals. Its officers are—Acting Managers: Mr. E. H. Paterson, Mr. H. G. Penney. Business Manager: Mr. C. H. Dawe. Assistant Business Manager: Mr. F. H. Nott.

That the above gentlemen know how an undertaking of this kind should be carried on, is well shown by the way in which the club vindicated its right to an existence, at its inaugural performance given at the Ladbroke Hall, Notting Hill, on Tuesday evening, February 22nd, before a large and most appreciative audience.

"A Woman's Caprice," the well-remembered curtain-raiser from the Prince of Wales' Theatre was the first item on the programme. This was produced by the kind permission, and under the personal direction of the author, Mr. H. M. Lewis.

In this piece the leading part was taken by Mr. A. H. Pollock, who did very good work as the young husband. The part of his wife was charmingly rendered by Miss Robbs, who looked very pretty and graceful. Mr. A. R. Clibborn as Captain Flareuppe, was as bluff and breezy as a retired sea-captain could be expected to be, while Miss Constance Paterson as his elderly spouse, made the most delightful old lady possible. The part of William Jones was played by Mr. F. H. Nott, who made an ideal butler, and that of May by Miss Agnes Pritchard. We were sorry not to see more of this latter young lady, as she showed much skill and good taste in her rendering of this small part.

In response to vociferous calls for the author, Mr. H. M. Lewis made his bow before the curtain.

The rendering of the Kendals' old favourite, "A Scrap of Paper," was highly creditable. The leading part found a capable exponent in Mr. E. Haldane Paterson,

an amateur actor-manager of some experience. Mrs. Kendal's original part was splendidly taken by Miss Constance Paterson, as to whose histrionic accomplishments there can be no two opinions. Her stage manner and actions are easy and graceful, her elocution excellent, the points ringing home in a manner not often surpassed. The comic element was largely supplied by Mr. J. Duncan Clay, in the part of Brisemouche. We are sure that this eccentric entomologist rarely provoked so much laughter as in the hands of this young débutant, who made an astonishing success at this, his first appearance on the stage. The youthful part of Anatole was sustained by another promising beginner, Mr. J. Pritchard. Miss Grace Robbs made the most fascinating parlour-maid imaginable. *Si sic omnes!* but Borough landladies unfortunately do not allow their domestic economy to be tinged by the slightest touch of æstheticism. Mr. C. H. Dawe, as the Baron de la Glacière, showed that he had caught the spirit of his part extremely well. Miss Edith M. Pritchard, as his somewhat hysterical wife, looked charming, and performed a difficult part with conspicuous success. Excellent work was done by Miss Paterson as the sprightly Mathilde, by Miss Jane Pritchard as the domineering Zenobie, and by Miss Daisy Smart as Madame Dupont, "housekeeper of the château." The parts of the servants Baptiste and Francois were well filled by Mr. F. C. Robinson and Mr. A. J. Beadel. The stage management was in the hands of Miss Agnes Platt, and was all that could be desired.

At the close of the piece, after several curtains, and when the members of the company had all received "calls," Mr. E. H. Paterson, in reply to tumultuous demands, made a very apt little speech of acknowledgment. Signor D'Amato's Ladies' Mandoline and Guitar orchestra, supplied the entr'acte music.

B. C.

Guy's Hospital Dental Society.

ANNUAL DINNER.

The Dental Society held their third Annual Dinner on Saturday, February 12th, at Frascati's. As on the former two occasions, the dinner was a great success, and the number present, eighty-eight, though slightly less than last year, shows the keen pleasure that old Guy's men, of whom the company was largely composed, take in meeting one another again.

Mr. Wynne Rouw, the president, was in the chair, and after the toast of "The Queen" had been drunk, proposed the toast of "Guy's Hospital." Some disappointment was caused by telegrams received from Dr. Bryant and Mr. Maggs, stating that they were unable to be present; in the latter case owing to domestic trouble.

In his speech, Mr. Rouw briefly referred to the history of the financial troubles through which Guy's had just passed, and said that it was in his student days that the beds had to be closed, and he well remembered the feeling of almost shame that everyone experienced when Guy's, for the first time in her long career, had to bow her head and appeal for external assistance. At the present time, he was glad to say, they were in a very different position, thanks largely to the efforts of H. R. H. The Prince of Wales. (Loud cheers). Passing on to the Dental department, he remarked that no one could now doubt that it justified its existence, and pointed out, what he designated as a "pregnant paragraph" in last year's report, which was to the effect that Guy's was the only general hospital that dealt on a large scale with the conservation of the teeth, and that whereas in 1890 the returns showed a total of 5,000 dental operations (excluding extractions), in 1896 this number had been trebled. He wound up by saying that the Dental School of Guy's Hospital had nothing to fear from competitors as long as it stuck to its present policy, which was, to use a paradox, a "progressive conservatism." (Cheers).

After a song, which was relieved at its most pathetic point by the violent fracture of two bottles, everyone began cheering frantically and looking towards the left-hand side of the chairman, where a dense column of smoke was to be seen slowly rising towards the ceiling. After the smoke and the cheering had cleared away,

Mr. Fripp and a cigar were discovered in the act of making a speech, which, as far as the reporter could gather, owing to the cheers and laughter which greeted the speaker's pleasantries, was somewhat to this effect: that all of us present were young and not to be bothered by long speeches; that the Treasurer and the Superintendent were both "splendid chaps"; that though no system could be perfect, not even the catering of the club, yet that, at least, we could say of our school that it was the envy of all the rest and especially of the other dental schools; that they all tried to copy us in everything, for example, in our Clubs' Union, and some of them burnt their fingers badly in the process; that he was very much amused by the use by his friend, Mr. Rouw, of the word "pregnant," which reminded him of an anecdote told of Mr. Braxton Hicks at a dinner. After Dr. Horrocks, who he reminded us, was a gentleman of the same persuasion, had made a speech in which he employed many technical terms, Mr. Braxton Hicks fairly took the palm by alluding to the recent delivery of Guy's of "twins—the best medical and dental schools—alive."

Dr. Silk then proposed the toast of the "Medical and Dental Schools," to which Mr. Wood replied in an excellent and quite inaudible speech. Mr. Jones next amused us by singing "I've her portrait nex' my 'eart," and as an encore, "Jack's the boy for me," in several keys, which added considerably to the effect.

There were several more speeches and songs, which were, the reporter believes, of undiminished excellence, but which he had reluctantly to tear himself away from owing to an important previous engagement.

Passim.

Guy's emerged successfully from the semi-final of the Rugby Cup competition, but the manner in which we did so, was hardly one to inspire the team's supporters with any undue confidence. A win by three tries to nil is nothing much to boast of on paper, and those who witnessed the game were still less inclined to praise the display. However, last Saturday's victory over Cooper's Hill quite altered the complexion of affairs, and should give the team an extra stimulus just at the time when it is most required. To-day's game with Richmond should prove a good tussle, and our men ought, on form, to win.

Writing as we are doing, before the United Hospitals Committee meeting to settle the unfortunate Greg question, we feel bound to say that on the face of it, the holders should be disqualified, since the Rule is perfectly plain and Greg's appointment, dated on March 1st., has been published in the Press. We are informed, however, that the Thomas's authorities, in the Hospital's own documents, ante dated his appointment a fortnight presumably in order that he might be legally qualified to play. This, of course, quite alters the question. If the Hospital Committee like to make the appointment to suit the circumstances it is no business of ours, and the Thomas's are quite within their right in playing the old Cambridge half-back. If the meeting, however, takes the opposite view, probably the circumstances of the case would be adequately met by ordering Thomas's to play Bart.'s, without the services of Greg. Rumour hath it, though, that the former intend to withdraw rather than do this, but surely this would be a very childish and weak position to take up, and would at least lay them open to the imputation of cowardice—not a nice accusation to have to face.

The Soccer Cup, alas, will soon have to leave our smoke-room as the Thomas's eleven last Friday week effectually stopped our further progress in the competition. We could plead extenuating circumstances but do not intend to. Our team has certainly not proved itself this year up to the standard of previous years, and the result of that Cup-tie is merely a confirmation of this fact. The Cup is now certain of a change of air, neither London nor Thomas's having held the Cup of late years and it remains for us to congratulate its ultimate owners and to look forward ourselves to regaining possession of the trophy next season.

The Second Rugby fifteen gained a notable victory last Saturday over the Thomas's Second in the Surrey Cup competition, and, so we are told, the form shown by the back division compares very favorably with that of the first team in recent matches. Some critics dare to say that it was even far superior. Be that as it may, the Second played a fine game and should now prove capable of defeating Surbiton in the semi-final.

The success of our cross country runners for the seventh year in succession in the Inter-Hospital contest again raises the question as to whether we could not buy the original cup outright for our smoking room. We do not know quite how the law stands on this question, but it seems quite an allowable and feasible project if only someone could be found to take the matter in hand. Can anyone help us with suggestions?

The *Guyoscope* is out again and is a decided improvement on its previous number, and no one will this time grudge the payment of the nimble sixpence necessary for its acquirement. It deals with the Surrey case in a masterly manner, and all the poetry is excellent. We are still existing on the "Food for Thought" without satisfying ourselves as to its signification. The illustrations, too, are well up to the mark, though "G. B.," will certainly not feel flattered by his presentment. We should like to point out, however, that if the caricature on the cover is meant for the Chief Surrey "Rioter," it was the right eye, and not the left, that was pigmented.

When we were first blessed with the *Guyoscope*, in the old threepenny days of last year, we were quite justified in speaking of it as "our little contemporary." But this privilege is now denied us, for with the reincarnation of the *Guyoscope* the size and price have been doubled. And the new production is quite what the pharmacologists call an "elegant preparation." While still preserving the racy style of *Guyoscope père, Guyoscope fils* combines with it an outward demeanour which would not be amiss in the most orthodox weekly review. Indeed it is almost a shock to pick up the second number of the new series and find that the sober cover

encloses a most rollicking interior, that the frock-coat, as it were, hides but the motley of the clown. Still the shock is pleasant and refreshing, and although the *Guyoscope* pokes fun at its older and more serious brother, yet the *Gazette* can cheerfully wish a long life to this merry little paper.

The letter we published in our last issue suggesting improvements in the present arrangements for the hospital externs has our fullest sympathy, and having just past through the ordeal—for ordeal it certainly is—ourselves, we feel that we can speak with some experience. It really does seem a shame, that what are certainly the hardest worked body of men in the hospital should have to go outside for their meals. Under the present arrangements, it is quite impossible to accept the terms offered by the committee for feeding in the club. We would suggest to the new steward when he appears, that it would be well worth his while to consider the question of catering for the externs, and we believe it would certainly repay him if he were to undertake the job in a reasonable manner. With the co-operation of the hospital authorities much could be done to alleviate the sufferings of those who, at the present time, supply the hospital with an excellent advertisement practically free of charge.

It was with sincere regret that we bade good-bye on Tuesday last to Miss E. C. Morrah, who has gained such deserved popularity during her two years' sisterhood of Accident (Astley Cooper) ward. All who have worked in the ward will agree what a real pleasure it has been to have cases there. The lot of a dresser and ward clerk—yes, and that of a house surgeon, too, is not always a happy one, but "Accident," as everyone still persists in calling it, has invariably gained golden opinions, and it is much to be regretted that circumstances should have arisen to compel Miss Morrah to relinquish her duties there. However, we have not the slightest doubt that Sister Minnie, when she assumes the reins of office, will prove a most able successor in every way.

We offer Dr. Bryant our heartiest congratulations on his appointment of Assistant Physician to the hospital and feel sure that after his long and arduous term of work as Medical Registrar, the well-earned change of work will be as much appreciated by him as it is deserved.

The wires for the electric lighting of the hospital subway are now in position, but before the fittings are finally adjusted, we should like to point out that there are two obvious objections to the arrangements. One is, that the encasing woodwork at the foot of the staircase up to the College, projects into the lumen of the all-too-narrow tubeway to such an extent, that it renders the safe descent of any hurried resident, for instance, a matter of considerable speculation. We have ourselves tested, quite unintentionally the hardness and abrasing qualities of the offending woodwork. The other objection is, that the bulbs, placed as they will be, centrally, will not only be a constant source of danger to the unwary top hat, but will also themselves stand every chance of being snapped off by any one above medium height, who may forget to stoop at the right moment. A lateral distribution would obviate this.

We have had sent to us by our Consulting Surgeon, Mr. Birkett, two obituary notices of old Guy's men; the first, that of Dr. C. H. Higgins, M.R.C.P., who at the ripe old age of 87 died last January at his residence at Birkenhead. He was a very well known man in the North of England, as was the late Cheshire Coroner—also a Guy's man—Dr. Churton, and is aptly described by the local paper as a man of all-round scientific, literary, and conversational knowledge. He was born at Java in 1811 during the storming of Batavia, being the first Englishman born on that island. The other notice is that of the late Edward Lund, F.R.C.S., of Manchester, who has done so much to raise the standard of the Medical School of Owens College to its present pitch of excellence. He was one of the earliest pioneers of Lister's Antiseptic System of Surgery, and in 1885 was Hunterian Professor at the Royal College of Surgeons. He qualified at Guy's in 1847.

It has always been our wish to publish articles in this paper which should be of technical interest to the more junior men. It is extremely hard, however, to get hold of the right description of matter, so we invite any who have a few spare moments to send us their suggestions on the point. Would reported lectures be appreciated, and if so, which ones? Are examination papers of any use? All these and plenty of other questions want answering by those who are most qualified to judge, namely, the men who themselves would or would not read them. So please send along your opinions.

Another subject on which we invite correspondence is that of a foundation of a Guy's Freemason Lodge. We confess ourselves profoundly ignorant on the subject of Freemasonry, but are perfectly willing to open our columns to those who are not so afflicted. So we publish to-day a second letter from an old Guy's man who is very keen on having the question raised, with the hope that it may provoke others to give us their opinions, and possibly a detailed account of how such a lodge should be founded at our Hospital.

It is not often in these days of hurry and scurry that one has to plead for more noise, but we think that there are some occasions when a few more ample vibrations of the sound waves would be much appreciated. What we mean is this. The words of wisdom of several members of our Teaching Staff at their various Clinical and Out-patient demonstrations are absolutely inaudible to any would-be hearer outside the small circle immediately surrounding the teacher. No doubt their tones are eminently suited to sooth the ears and calm the minds of their anxious patients. But with all due respect to the feelings of the patients, and with full appreciation of the fact that the tax upon their vocal chords is often prolonged and exhaustive, we do politely ask our teachers to talk to us a little louder.

The results of the recent Inter. M.B., London, examination are not particularly gratifying as far as Guy's is concerned. Why is this so? We cannot help thinking that the tendency nowadays is for men to neglect their practical work and to devote too much time to hard reading, which, when indulged in to excess, only tends to blunt instead of sharpen the natural wit. And the London Intermediate is without doubt a thorough practical test, and one for which it is necessary that the candidate should have all his wits about him, and all his knowledge at his fingers ends. Perhaps the July examination has better things in store for Guy's men.

The Medical School is not quite up to date even now. Most junior men who frequent the "other end" are aware that there are now three tests in Anatomy and Physiology, all of which must be attended. And every man, junior and senior, is aware that our brothers down under have come to the conclusion that *five* tests should be always arranged when any momentous question is at stake. Might we then suggest to the School that five test papers be arranged, and that the issue of three out of five settles the question of signing up. Just think of the tremendous excitement when Mr. Slacker has scored two to the Janitor's two with "one to go." We could even imagine the *Guyoscope* bringing out a special edition with the final result.

Last Saturday's Smoking Concert turned out to be, in spite of a little contretemps at the commencement of affairs, a huge success. The promoters wisely decided not to go far afield in search of talent, but employed chiefly the local article, with most satisfactory results. The programme was long and varied, and included amongst other items songs by Messrs. Stanley Graham, Cazenove, Bailey and Miller, the last named gave an original song entitled "Outside," which went down splendidly, to verse referring to the now well-known "Surrey Riot," being the tit-bit of the evening. The presence of Dr. Pavy, and other members of the Staff, was not the least pleasing feature of what was decidedly the most successful smoker of the season. The proceeds of the sale of tickets amounted to the eminently satisfactory sum of £20.

Having just heard the result of the protest raised by St. Bartholomew's against Greg of Thomas's, we must crave leave to add a few more words on the subject to those written above. At the committee meeting held at King's College on Thursday last, after the evidence of the Lambeth Section had been heard, a sub-committee was appointed, by whose decision all parties agreed to abide. This sub-committee decided that the protest had not been upheld, and consequently St. Thomas's enter the final round. Though for some reasons we are gratified at this result, yet we must reiterate our opinion that Bart's were perfectly within their right and did quite the right thing in protesting; for we have before us at the present time, cuttings from the public press in which it is distinctly laid down that Greg's appointment dates from March 1st, and that being so, how in the world could any one know that the house committee of Thomas's had made any other rule. For such a rule it turns out has been made to the effect that Assistant House Surgeons come on duty a fortnight before the announced date, the reason given being, in order that those A.H.S.'s about to take on full H.S.'s duty, might be able to take a short holiday before so doing. The Thomas's executive acted unwisely,

to say the least of it, in not announcing the new rule publicly, as their line of conduct clearly lays them open to the charge of not acting in good faith. Now that the business is settled, we hope to see the rule which has caused all the fuss either strengthened or abolished.

The Annual Ladies' Night of the Debating Society will take place on March 26th, when Mr. J. Brydone will propose "That the Recent Developments of the Emancipation of Women are a failure"; Mr. W. R. Cazenove will oppose; Mr. Fortescue-Brickdale will speak third, and Mr. K. Wills fourth.

The Annual General Meeting of the Athletic Club will be held on Monday next, at 4 p.m. in the Surgical Class Room with Mr. Lucas in the chair. It is hoped that all men interested in the Club will make a point of being present.

The final cup-tie has been provisionally fixed for Tuesday, March 15th.

Royal College of Physicians, 1898.

Lectures of the present year will be delivered at the College, Pall Mall East, on each of the following Tuesdays and Thursdays, at five o'clock:—

Goulstonian Lectures.—Dr. J. Rose Bradford, March 15th, 17th and 22nd, "Observations on the Pathology of the Kidneys."

Lumleian Lectures.—Sir R. Douglas Powell, Bart, M.D., March 24th 29th and 31st, "On the Principles which govern Treatment in Diseases and Disorders of the Heart."

Milroy Lectures.—These Lectures, which should have been delivered by Dr. S. Monckton Copeman "On the Natural History of Vaccinia," on March 3rd, 8th and 10th, are unavoidably postponed, owing to the illness of the lecturer, to May 3rd, 5th and 10th.

Dental Department.

VACANT APPOINTMENTS.

1. Demonstrator of Practical Dental Metallurgy.
2. Demonstrator of Practical Dentistry.

Applications are invited from candidates for the above-named vacancies, and should be forwarded to the Treasurer, Superintendent's Office, Guy's Hospital, S.E., on or before Saturday, March 12th, 1898. The Demonstrator of Practical Dentistry will be required to commence his duties on May 1st, 1898, and the Demonstrator of Metallurgy on October 1st, 1899.

Further particulars may be obtained on application to the Dean of the Dental School.

Correspondence.

To the Editor of Guy's Hospital Gazette.

A Freemason Lodge at Guy's.

Dear Sir,—Has the scheme for founding a Guy's Hospital Masonic Lodge been dropped? If it has, I think it is a pity, for I feel sure that it would receive the support of a large number of old Guy's men.

I believe St. Thomas's are now taking steps to found a lodge, and, talking it over with an old St. Thomas's man, I suggested that Guy's and St. Thomas's should unite to found a United Hospitals Lodge. What do Guy's Masons think of the idea?—Yours faithfully,

February 25th, 1898. J. H. GIBSON (P. M. 1,046).

P.S.—St. Bartholomew's have a very flourishing lodge.

The Physical Society.

Pathological Meeting, February 19th, 1898. Mr. S. E. Denyer in the chair. Present, 27 members. The following specimens were shown:—

Mr. Stoehr.—(*a*) Gangrenous pancreatitis with fat-necrosis; (*b*) Cancerous stricture of pylorus. Pylorectomy.

Mr. Ferraby.—(*a*) Sarcoma of kidney of child aged two years; (*b*) Bronchiectasis.

Mr. Stamford.—Stricture of pylorus and dilated stomach. Gastro-jejunostomy.

Mr. Mayston.—(*a*) Carneous mole with blighted embryo; (*b*) Cancer of cervix uteri complicated with pregnancy.

Mr. Fremantle.—Klebs-Löffler bacilli from a case of supposed secondary infection with diphtheria.

Mr. Fisk.—Fibrosis of lung. ? Syphilitic.

Mr. Barron.—Casts from a case of membranous colitis.

University of Durham.

PRELIMINARY EXAMINATION IN ARTS.

At a meeting of the Senate held on Tuesday, February 1st, 1898, it was resolved that the following examinations be accepted as exempting from the Preliminary Examination in Arts of the University for the Degree of Bachelor in Medicine and Bachelor in Surgery:—

1. The First Public Examination in Arts of the University of Durham.
2. The University of Oxford Moderations.
3. The University of Cambridge Previous Examination, with the extra subjects.
4. The University of Cambridge General Examination.
5. The Metropolitan Examination of the University of London.

R. HAWDEN,
Secretary of the University of Durham College of Medicine, Newcastle-on-Tyne.

My Three Years in the Arctic.

By R. Koettlitz, M.R.C.S., Medical Officer to the Jackson-Harmsworth Expedition.

(*Concluded.*)

While out on this journey we got into a very perilous position by being caught in a storm. We had left Cape Neale, intending to proceed westwards, and land somewhere about Capes Ludlow, Lofley, or Mary Harmsworth, but when approaching Cape Lofley the storm gradually but very rapidly arose, and we soon found that there was no possibility of landing upon this part of the coast. The wisest plan under such circumstances was to turn back and try to return to Cape Neale, and that is what we did. It was soon, however, found that the gale, which was from the north-east, would not let us "make it," and at last we had reluctantly to come to the conclusion that we were "in for it;" the waves now began to run high, and we could not keep the boat's bow up to them, a sea anchor was therefore made, by lashing two oars together and weighting it with our large ice anchor. By the help of this we hoped to ride out the storm, but after a time the line holding it, was cut by a lump of ice with which it got foul, and we had to keep her up to the sea by each of us taking it in turns to take an oar at the bow for that purpose. Rain, snow and sleet came down continuously, and we were quickly out of sight of the land, and feared we should never see it again, if, indeed, we ever saw any land again, for the waves ran mountains high; we shipped water continually and we began to fear we could not keep our heavily laden boat afloat.

The long and the short of it was, we were three days and two nights out before we found our way back to land, where we arrived—upon Cape Grant—with great difficulty, worn out and wet through, but after staying some days to recoup and dry our clothing we continued our journey of exploration until our food supply becoming almost exhausted we were obliged to return to Cape Flora, and it was lucky we did, for just after our return the sea became covered with ice, which had floated in from the eastward, probably from the Kara Sea, so that had we been later it would have prevented our return, for we could not, with the boat, have got through these moving masses.

The remainder of the summer was spent in various collections and necessary work, also in preparing our larder for the winter, for by this time we had become very tired of bear-meat, which at best is not very palatable. The looms were very much better eating, so over a thousand were shot and hung round the house roof, were they froze, and thus were kept fresh all through the winter. Again we had the Arctic night and winter upon us, with its succession of furious gales and snowstorms, with low temperature. During this winter we had on two occasions a condition of things that I think is unprecedented, which was a strong gale with a temperature at the same time of from 40 to 46 degrees below zero! This, I need not say, it was almost impossible to be out in. This winter was spent much the same as the last, and during it, two of our three surviving ponies died.

The sledging of 1896 was productive of very little result, for although a start was made earlier in the season than last year, the same open water which stopped the party's reaching a high northern latitude again stopped it this year. More coast-line was, however, added to the map, and the British Channel, etc., was found.

After the return of the sledging party, we busied ourselves in collecting and fetching drift-wood from Cape Gertrude, between three and four miles away, for our coal was getting perilously near being used up. We therefore, got some tons of this wood, which is here rather scarce, to help eke out our coal.

On the 17th June, at 9 o'clock in the evening, just after dinner, Armitage—one of our number—who had gone outside with his binoculars to search the horizon, as he now frequently did, for the *Windward*, which we were daily hoping to see, came in and said, "Are we all here?" We could not understand what he meant, and said so. He then looked round, and seeing that everyone was within doors, said, "I wanted to know, because there is a man on the ice!" We could not believe him, and said he must be mistaken. No, he was not. So out we rushed, and then saw, about three miles away, a black speck, standing upright and evidently moving, in the south-east, walking upon the white floe. Most certainly he was a man. Who could he be? Question and answer followed each other in rapid succession. All kinds of surmises were made. "A shipwrecked walrus slooper." "The *Windward* had come to grief and this was a survivor," for no ship could be seen in the distance. "Could it be Nansen?" "No, impossible," etc., etc. "Well," says Jackson, "Whoever he is, I am off to see," and he went. We watched the approach of the two with the keenest curiosity. I, for my part, could not go and see, for I was busy "washing up" the dinner things. Some of the others, however, soon followed, and in the end, when Jackson and the stranger came up, I found, from what Jackson told me, that he was, indeed, Dr. Nansen, who had, with one companion, Johansen by name, penetrated as far north as 86° 15′ 0″, and from thence found his way here. I need not say that, when shaking hands with Dr. Nansen, I warmly and most heartily congratulated him upon his splendid achievement, and welcomed him to Elmwood. We then left Dr. Nansen with Jackson, and taking two light sledges with us, wended our way to where he had left his companion, Lieutenant Johansen, of the Norwegian army, with his kayaks and other equipment. When we got up to Johansen we found that he could not understand English, but I found he could German. We all then heartily welcomed and congratulated him, cheering him, and the Norwegian flag he had flying, lustily, gave him the first pipe of tobacco he had smoked for sixteen months, also a nip of port wine

Armitage had brought with him, and after giving and hearing news on both sides—from him that the *Fram* was safe, and that they had left her sixteen months ago in 84° north latitude, with all on board well. We packed the sledges with his and Nansen's gear, and brought them—not allowing him to help us—to Elmwood with considerable difficulty, owing to the extremely rough nature of the ice we had to traverse, so that we did not arrive till past 3 a.m.

Our visitors were then given a good meal, to which they did ample justice, for they had not had farinaceous food for quite a year, and they could not help expressing how delicious everything tasted to them; they were then photographed in their "war paint," after which they had a bath, their hair, which was very long, was cut, they had clean clothes given them—for theirs, naturally, were filthy, and soaking with oil—Nansen had a shave, and they were generally made comfortable.

We then continued in converse till about nine in the morning, when we all turned in.

I cannot here give you an idea how much more pleasantly the time passed now we had their company, how interested Nansen was in our scientific and geographical discoveries, how keen he was in exploring the geological sections and exposures I took great pleasure in showing him. Some of the moments I thus spent in his company on the rocks of Cape Flora I shall always remember as some of the happiest of my life. The time sped all too quickly, and when the *Windward* was announced, we got our wonderful news, wrote our letters home, and said farewell to our visitors, Dr. Nansen and Lieut. Johansen. It was with unfeigned regret that we parted from them.

Four of our party returned with them, Messrs. Fisher, Child, Burgess and Blomkvest, but we had two new companions who had come out to join us. They were D. W. Wilton—who we had met at Archangel—and W. S. Bruce, of antarctic fame. They, who were most welcome, together with Messrs. Jackson, Armitage, Heyward and myself now constituted our party of six. They commenced to spend their first year in the arctic, we our third.

The remainder of the summer was spent as usual in zoological, botanical, meteorological, magnetic and geological observations and collections, doing much necessary odd jobs and rough work, and in shooting birds for our winter larder. About 1,400 birds were secured and hung up in the same way round the house in festoons under the roof.

Our third arctic winter then began, and how I almost dreaded it, its monotony of continuous darkness is really horrible, and that coupled by the beastly weather one has to expect makes it the frightful thing it really is. I can quite endorse Lieutenant Peary's remark at the Royal Geographical Society of December 6th, 1897, that people at home seemed to think that the cold was the worst of arctic experiences to bear, but that it was not so: this long, dreary, monotonous, maddening arctic night was the worst by far.

But everything has an end, and again we welcomed the return of the sun, sledging preparations went forward as usual, and about the middle of March, two of us, Messrs. Jackson and Armitage, started alone for the long journey round the land to the west. Only two of us could go for we had only one pony and fourteen dogs which were barely sufficient to pull the food and equipment of ten men. While they were away, we—Bruce, Wilton, Heyward and I—made short excursions for geological and other purposes and obtained some valuable results. This and the work Jackson left for us to do kept us very busy.

At last the time arrived for the sledging party to return. The day we expected them arrived, but we saw nothing of them; we made up our minds that if a week elapsed and they did not turn up, we would go with provisions to their relief. The week passed with no sign, so we quickly got ready, and Bruce, Wilton, and I, leaving Hayward in charge at Elmwood, started, pulling a sledge with a load of 500 pounds, which we found we could shift fairly easily on smooth ice, we used our ski for walking. The day after our start we arrived at Eira Lodge, the house of timber that Leigh Smith had brought from England sixteen years before and built on Bell Island, and there we found that Jackson and Armitage had just arrived, they were exceedingly dirty and grimed, because, having run out of fuel, they had had to use the dirty bear oil for their cooking, etc. They had also been on short commons for some days.

The cause of their delay had been that they had had very severe weather, which prevented their travelling for days together, and also killed their animals. The pony had died, so had also nine dogs, and having only five surviving, they had to leave much of their equipment, and could also do less long marches, which also were slower. The food we brought was therefore very acceptable, and they hailed our advent with pleasure. After being delayed there for thirty-six hours through bad weather we returned to Elmwood with them.

A short journey was made after this, but, on account of the weak ice they had to go over, an accident occurred, in that one of the sledges got through the ice and the provisions were lost, the journey therefore had to be given up.

The summer was spent, as we always did, in doing any scientific work we could, cleaning bird and bear skins, etc., as well as the necessary work. On July the 7th, however, late in the evening, we hailed with satisfaction the appearance of a ship, which we naturally concluded was the *Windward*, but it did not come up to Cape Flora, but proceeded up Meers' Channel. This rather surprised us and we could not understand the meaning; our perplexity was, however, satisfied in the morning, when we learnt that the ship was not the *Windward* but the *Balæna*, a whaler, which having been to Greenland—where they secured a whale—had come here for walrusses, having heard from Captain Browne, of the *Windward*, who reported last year that there were large numbers of walrus about here, the

bicycle trade causing a demand for the skin as burnishers, and the price thus having risen to three times as much as it was before.

We therefore waited till July 22nd, when at last the *Windward* appeared, and before we left two other whaling ships after walrus appeared also. After some delay in getting all our effects on board, we set sail upon our return home on August 6th, at first going west to further explore the land to the westward, the sea being so open and promising so good a chance, and also to proceed to the north-west of the most westerly point of this land to see if we could see anything of Gillis Land, which is reported to be there.

Having landed at Cape Mary Harmsworth, for we found that round to the west was a shingly beach, and there finding, among other interesting things, a large breeding place for ivory gulls and eider ducks, we proceeded north-west for fifty miles until stopped by ice, and saw no signs whatever of land in that direction, soundings also showing that the depth of the sea was here over 200 fathoms, which was also an indication of there not being land near. We then turned back and shaped a course towards the Johannan's and Andreassen's Islands, but found that they also were not where they were reported to be. We did not seek them as the ice did not look promising, so made the best of our way home, passing on the way Hope and Fear Islands, the latter of which we had a good view of, and after much delay, due to adverse winds and the small steam power of the *Windward*, we at last set foot at Erith upon old England again after an absence of three years and two months.

Novelties.

MATERIA MEDICA, PHARMACY, ETC.

A Year's Physic at Guy's.

There are no indications at Guy's that the belief in the use of drugs is on the decline. It has been said that serums and animal extracts will replace drug treatment, but the diminution of the drug bill has not yet commenced. The serums in use during the last year have been diphtheria antitoxin and the antistreptococcus. A small quantity of Koch's new tuberculin has also been employed.

There has been a curious revival of an old remedy—Musk. This drug was used centuries ago; it fell into disuse; was removed from the Pharmacopœia; has been resuscitated; and is now given in typhoid fever. The treatment of typhoid by musk is very expensive—a case may cost over five pounds. Spanish Flies, in the form of blister, are still in demand; and last year twenty-six yards of Emp. Cantharides, eight inches wide were spread. Leeches are rarely ordered, possibly about 100 are required during the year. The Thyroid Gland in a compressed form has been used to a small extent. This is the age of antiseptics; they are used very largely, and form a big item in the expenditure of the hospital. A dark-coloured alkaline liquid, obtained by the saponification of cresols, and containing the higher homologues of carbolic acid, termed Lysol, is now the favourite. It has, to a great extent replaced Carbolic Acid. Last year 136 gallons of Lysol were used, representing 7253 gallons of the 2 per cent. solution sent to the wards. In 1896, 3,360 lbs. of Carbolic Acid (equal to 6,720 gallons 1 in 20 solution) were required; in 1897, only 2,240 lbs. (representing 4,480 gallons 1 in 20 solution). Iodoform still remains in favour, 84 lbs. being the quantity used. The consumption of Boric Acid is about 15 cwt. yearly. Hyd. Perchlor. is employed to a large extent, but as a little of this goes a long way, the quantity used, 47 lbs., does not appear very great. Formaldehyde, or Formalin, has sprung up from 9¼ lbs. in 1896 to 41 lbs. in 1897. Creolin still maintains it place—112 lbs. last year. Eucalyptus Oil, Thymol, Salol, Resorcin and Sanitas are only in small demand.

Of Anæsthetics, 480 lbs. Chloroform, 584 Anæsthetic Ether, 90 lbs. Absolute Alcohol have been used, mainly in the form of A.C.E. mixture. Nitrous Oxide Gas is now largely employed in the Hospital, distinct from the Dental School; 11,100 gallons were inhaled during 1897. Cocain Hyd. remains about the same—16½ oz. Ethyl Chloride Spray is occasionally employed.

The following list will give an idea of the use of some of the chief drugs:—Conf. Sennæ, 224 lbs.; Ext. Cascar. Sag., 155 lbs.; Ext. Malt, 5021 lbs.; Cod Liver Oil, 600 gals.; Chloral Hydrat., 128 oz.; Chloralamide, 128 oz.; Antipyrin, 256 oz.; Quin. Sulph., 450 oz.; Camphor, 201 lbs.; Calomel, 26 lbs.; Opium, 62 lbs.; Pot. Bromid. 252 lbs.; Pot. Iodid., 106 lbs.; Sal Volatile, 1084 lbs.; Oxygen Gas, 5,000 gals.; Lard, 11 cwt.; Vaseline, 21 cwt.; Sugar, 50 cwt.; Honey, 19 cwt.

Surgical Dressings cost the Hospital over £1,500 last year. The following are the chief items:—Bandages, 950 gross; Gutta Percha Tissue. 276 lbs.; Grey Gauze, 25,562 yards; Iodoform Gauze, 13,434 yards; Carbolic Gauze, 6,284 yards; Sal Alembroth Gauze, 12,030 yards; D. Cyanide Gauze, 808 yards; Gamgee Tissue, 140 yards; Cellulose Wadding; Lint, 7,588 lbs.; Boric Lint, 884 lbs.; Tow, 26 cwt.; Carbolized Tow, 334 lbs.; Absorbent Wool, 3,304 lbs.; Grey Wool, 2,788 lbs.; Sal Alembroth Wool, 1,670 lbs.; Salicylic, 588 lbs.; Wood Wool, 440 lbs.

In 1897 there was a daily average of about 425 In-Patients; 73,742 prescriptions were dispensed for Out-Patients; to supply the wants of In- and Out-Patients it was necessary to make 586,000 pills, 54,531 lbs. of ointments, 380 gallons of tinctures, 150 gallons of syrups and to spread 10,832 yards of strapping plaster.

H. COLLIER.

NOTICE TO CORRESPONDENTS.

The Editor wishes it to be understood that no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Sport.

Association Football.

GUY'S v. ST. THOMAS'S.

Semi-final of Inter-Hospital Cup.

This match was played at Leyton on Friday, February 25th, and after a very exciting game, ended in a defeat for Guy's by three goals to nil.

Guy's were not at full strength, Card and Roberts playing in place of McAlpin and Humphry.

Thomas's kicked off, and immediately rushed the ball up, but Robson cleared, and Hughes while following up, injured his knee so badly that he was forced to retire and took no further part in the game. Guy's through this misfortune had to play with ten men for practically the whole game. For a short time Thomas's pressed hard, and our men conceded several corners, but nothing resulted from them. Gray brought relief by a run down the wing, but centred badly. Wiltshire was marked by several men, and was consequently unable to do much. Several ugly rushes on the part of our opponents were pulled up well by our backs, but Thomas in running out to a dropping shot, misjudged it, the ball bouncing over his head, from which they secured an easy goal. Mandy made several good runs and centred well, but Harrison, the opposing goal-keeper had no difficulty in clearing. Play then ruled in our half for a short time, and after a scrimmage in front of our goal, the ball was again rushed through. The game was stopped on two or three occasions on account of our men getting winded, but then our forwards going down with a good rush, Roberts turned a fast centre with his head to Wiltshire, who, however, failed with the shot. A short time after this Wiltshire had a blow in the face, and retired, but only for a few minutes. Up to half-time the game was fairly even, but no other score resulting, Thomas's crossed over with a lead of two goals.

On re-starting our men played up, much more vigour and combination being infused into the play. Several times our forwards put in some good work, but nothing resulted. The opposing forwards then gained possession and gave our goal-keeper some work. Robson who had been kicking extremely well, made a bad kick in front of goal, and Thomas's easily scored their third goal, Thomas falling in attempting to save. From this point our men had much the best of the game, the forwards played with great dash, and although one short, played with good combination. Wiltshire put in a fine low shot which Harrison just saved by throwing himself at full length on the ground, and turned it round the post. Gray shortly after put in another, which he saved in the same way, nothing resulting from the corners conceded.

Mandy played a good game on the wing, and from one of his centres a goal should have been scored, Harrison falling down in a scrimmage in the mouth of the goal. After a good piece of play by Roberts, Wiltshire hit the cross-bar with a fast shot, and the ball was again put in from the rebound without result. Twice the Thomas's forwards got away, and should have scored easily on one of these occasions, but shot wide. Our men brought the play back to our opponents' half, and although they tested Harrison with some good shots, were unable to score, the game ended as stated.

Our men on the whole played a really good game. Thomas was not so safe in goal as usual, and should have saved at least one goal. The backs played a good defensive game, Robson kicking and tackling well. Card was the best of the halves, and played well throughout. The forwards played a good game. The passing was fair, and the shooting was much better than usual. Wiltshire, in particular, worked hard, and was unfortunate in not scoring. Team:—

Guy's.—A. R. Thomas (goal); E. A. Longhurst, W. R. Robson (backs); R. W. B. Hall, P. Shepherd, L. O. Card (half-backs); P. S. Mandy, W. O. Roberts, H. P. Wiltshire, A. Hughes, A. C. H. Gray (forwards).

GUY'S v. REIGATE PRIORY.

Played at Reigate on Saturday, February 26th. Guy's were very weak owing to some of the team being *hors de combat* after the Cup-tie on the previous day; while those who did play were evidently suffering from the effects of that match. Guy's played down the slope in the first half, and though at times they held their own, Reigate did most of the pressing. Reigate scored once before the interval.

On changing over, Guy's played up for a time, and ought to have made more of their opportunities. They were, however, obviously stale, and the game was soon confined to their half of the field—occasional attacks were made on the Reigate goal, but were always unsuccessful. Reigate scored five times in the second half, thus winning by six goals to nil.

It was scarcely to be wondered at that Guy's should have been somewhat easily defeated, considering the team, and the fact that the Hospital Cup-tie had been played on the day before.

Thomas in goal has never given a better display of his powers as a goal-keeper, being brilliant throughout the game. He could not have saved—with perhaps the exception of one—any of the shots which scored. We regret that he will not be able to play for the team next year, and congratulate him on ending his football career at the hospital in such excellent form.

Longhurst was not up to his true form, but he was handicapped by cup-tie injuries. Robson was good at times, and worked hard all through the game. Hall was unfortunately unable to play owing to injuries received in the previous match. Card took his place at right half, and though much too slow in following up his forwards, played a useful game. Among the forwards combination was entirely absent; seeing, however, that three of them were substitutes, this can scarcely be wondered at. Mandy worked hard and well, but he did not receive much support. We were glad to see M. H. Thornely once again in the team.

Our thanks are due to the Reigate Club for the enjoyable manner in which they entertained us during the evening. Team:—

Guy's.—A. R. Thomas (goal); W. M. Robson, E. A. Longhurst (backs); L. O. Card, J. Matthews, J. Nash (half-backs); P. S. Mandy, H. K. Lacey, W. O. Roberts, M. H. Thornely, A. C. H. Gray (forwards).

GUY'S 2ND XI. v. DRUIDS 2ND XI.

Played at Willesden on Saturday, February 26th, and resulted in a win for Guy's by four goals to one. The game was very poor throughout, and we were never pressed for any length of time. We were very unlucky in not scoring more than we did, as several of Peall's shots went very near. Hughes and Witcomb combined well on the left, while Peall in the centre, and Collins at half both worked hard. The goals were scored by Peall (3), and Witcomb (1). Team:—

Guy's.—F. M. V. Smith (goal); H. Tipping, P. W. L. Camps (backs); G. T. Collins, P. P. Cole, J. Braithwaite (half-backs); A. H. Turner, C. M. Cowper, P. A. Peall, L. J. Hughes, C. F. Witcomb (forwards).

Rugby Football.

GUY'S v. ST. GEORGE'S.

This match in the second round of the Inter-hospital Cup ties, which was postponed on Friday 12th, was played at Richmond on the following Thursday. After an exciting game, Guy's won by a goal and a try to a goal from a mark. The passing on either side was weak, but the spectators were treated to some good forward work. There was little to choose between either pack, Guy's appearing the better when the ball was kept tight, but directly the scrummages were broken up, St. George's gained a lot of ground. It may here be mentioned that T. P. Thomas, our best forward in the loose, was absent from the pack, and also that A. A. Smith received a severe injury to his ankle early in the game, and was only able to limp about. At starting, Guy's pressed strongly and forced St. George's to touch down, and the game was taken from one end of the ground to the other in rapid succession. They had been playing for nearly twenty-five minutes before any score resulted, and then Rae received the ball from M. C. Wetherell on the blind side of the scrum, and running along the line, gained a clever try wide out. The place kick was not a success, and at half-time Guy's led by a try to nil.

The play throughout the second half was very interesting, St. George's frequently giving promise of doing great things, but they were stopped always just in the nick of time. Guy's further increased their score through M. C. Wetherell, after a pretty bit of play between him and his brother; Walker improved the point. After this George's did a lot of good work, they frequently got into the Guy's twenty-five, only, however, to be beaten back. Eventually a mark by Evans enabled Taylor to place a goal. Right up to the finish the game was most exciting, but as no further score resulted, Guy's retired the winners by eight points to four.

Several chances of scoring were thrown away by the three-quarters not backing up the halves. The latter made many good openings, which were useless through lack of support. They must begin to get on the move immediately the ball comes away from the scrum. Team:—

Guy's.—A. C. Ransford (back); F. L. Rae, F. W. Sime, F. D. S. Jackson, F. E. Walker (three-quarter backs); F. C. Wetherell, M. C. Wetherell (half-backs); R. C. Mullins, F. G. Gibson, D. H. Traill, A. A. Smith, H. A. Cutler, F. R. Featherstone, G. Shorland, H. V. Bagshawe (forwards).

GUY'S v. H.A.C.

We have frequently witnessed and heard of defeats in which the vanquished have saved themselves from disgrace, but in this encounter we were brought face to face with a victory, accompanied by disgrace to the winners. That one of the first teams round London should have given such an exhibition—we cannot say of football—especially a team in preparation for Cup ties, is a very deplorable circumstance. Keen supporters of the team had hoped that advantage would be taken of the fact that our oppponents had a weak side, and, with all due deference to the H.A.C., they were very weak, and that our backs would take the opportunity to combine, and so find out the peculiarities of each other's play. Instead, however, the three-quarters and halves gave the most wretched display that they have yet given, and the same remark applies with equal force to the forwards. So awfully bad was the passing, that we heard, and had to put up with, the derisive laughter of some of the rougher element among the spectators, and we regret to have to admit that it was quite justifiable. The forwards were just able to hold their own in the packs, though the other side had only seven men playing in that position, many of whom knew little or nothing about the game. The lessons taught by the first Catford Bridge and second East Sheen matches appear to have been entirely thrown away, and the weaker the team against us, the weaker we still play. We are to meet a comparatively weak side in the next round of the Cup ties, but after witnessing the match under notice, we cannot with any confidence predict what the result may be.

The game itself needs no description, but Guy's won by two goals and two tries to nil. Rae, Wetherell, Bagshawe and Sime scored the tries.

GUY'S v. MIDDLESEX.

Inter-Hospital Challenge Cup.—Semi-final Round.

Beautiful weather favoured this match on the Richmond Athletic Ground on February 24th, but there was only a moderate company present. As anticipated, Guy's proved successful by nine points to nil. They were undoubtedly the better team, particularly at half and three quarter, but at forward there was very little to choose; indeed, more than once the Middlesex lot looked like scoring, but when attacking they lacked the ability to clinch matters.

Having lost the toss, Middlesex at a quarter-past three kicked off up the slope and against a cross wind. Rushing the packs, they soon got well within Guy's twenty-five line, but after a lot of scrambling play in this quarter, *Mullins broke through and ran into Middlesex ground*, where Rae made his mark, but the ball, helped by the wind, went over the goal-line, and Middlesex conceded a minor. On resuming, Guy's continued to attack, and though Middlesex were awarded a penalty, they gained nothing. A couple of exciting "scrums" were formed close to the Middlesex posts, and the ball coming out on his side, Keays took a "speculator" and kicked to Rae who made his mark, but Walker's shot for goal went wide, and Middlesex again touched down. Subsequently Guy's territory was invaded, but not for long, as, rushing back, Middlesex were again soon on the defensive, and after a scramble Manson scored a try on the extreme left, but Walker made a poor attempt to improve. Guy's continued to hold the upper hand, and a long kick by Ransford went over the line and enacted another minor. Afterwards bad passing only prevented Guy's from getting in again, and a mistake by Wetherell let in Keays, who, with a smart punt, took play to neutral territory. By degrees, however, Guy's forced their way into Middlesex ground, and though Clements once relieved with a good dribble, another attack by Guy's ended in Mullins scoring in a favourable position, but Walker once more failed to negotiate. Soon after the drop out Clements was again conspicuous with a brilliant dribble, but at half-time play was in Middlesex ground with Guy's leading by two tries to nil.

With the wind in their favour, Middlesex, directly the second half started, played up with renewed vigour. Rushing down the field in a body, they confined play for some time within the Guy's twenty-five, and by degrees they worked their way down close to the goal-line. Here several exciting packs were formed, and Middlesex looked like scoring more than once, but an injudicious kick by one of their forwards sent the leather over the line, and Guy's touched down. On resuming, Middlesex once more attacked, but without effect, as an irresistible rush by the Guy's front division took the leather into Middlesex territory, where the latter had for some time to defend strongly. They managed to do this, and thanks to some good sprints by Bacon and Elwes, got back into neutral ground. For a long time scrambling play in this quarter ensued, but eventually Clements, Davey and Burgess made a capital dribble into Guy's quarters, but they could not long sustain the pressure, as Guy's were again soon attacking, and from a pack close in, F. C. Wetherell burst through and scored a try in a good position. T. B. Thomas on this occasion took the place, but did no better than Walker. Afterwards each side in turn attacked, but nothing further resulted, Guy's winning by three tries (9 points) to nil. Team :—

GUY'S.—A. C. Ransford (back); F. L. Rae, F. W. Sime, F. D. S. Jackson, F. E. Walker (three-quarter backs); F. C. Wetherell, M. C. Wetherell (half-backs); R. C. Mullins, A. H. Wall, D. H. Traill, T. B. Thomas, H. A. Cutler, P. Manson, G. Shorland, H. V. Bagshawe (forwards).

GUY'S v. R.I.E.C.

Played at Cooper's Hill on February 26th and resulted in a win for Guy's by one try to nil, after a most enjoyable game. Guy's lost the toss and played against a strong wind and the sun. *Mullins kicked off and Gibson* and Manson preventing a return, play settled down in the College half. After about ten minutes play in which Guy's nearly scored more than once, M. Wetherell had to leave owing to an injured knee. Bagshawe was taken out of the scrum and played wing three-quarter where he shewed very good form throughout the match. Nothing was scored during the first half, although Guy's had to act chiefly on the defensive, the three-quarters and Ransford being very safe.

In the second half, Guy's with seven forwards and the wind, more than held their own, Rae scoring for out on the right after a splendid piece of combined play by Bagshawe, Hilton, Sime, and himself. Ransford failed with the kick. On re-starting the College attacked strongly, and were only prevented from scoring by some splendid tackling by Ransford. Nothing further was scored, and Guy's left the field winners. After the match we were most hospitably entertained by the Cooper's Hill men. Team :—

GUY'S.—A. C. Ransford (back); F. L. Rae, F. W. Sime, F. D. S. Jackson, C. T. Hilton (three-quarter backs); F. C. Wetherell, M. C. Wetherell (half-backs); R. C. Mullins, F. G. Gibson, D. H. Trail, H. A. Cutler, A. H. Wall, P. T. Manson, G. Shorland, H. V. Bagshawe (forwards).

GUY'S 2ND XV. v. ST. THOMAS'S 2ND XV.

SURREY CUP.

These two clubs met in the second round for the above Cup on Saturday, February 26th, at Honor Oak Park. The game proved a very good one, and resulted in a very creditable win for Guy's, by one goal two tries to a goal. St. Thomas's won the toss and elected to play towards the pavilion end, having the advantage of a strong wind. Guy's kicked off and St. Thomas's return went into touch at half way. Several scrums followed in neutral ground, and Guy's forwards, who were lighter than their opponents, held their own. The ball was let out several times, but Guy's half-backs did not send it out smartly enough, and their passing at this stage of the game was rather high. St. Thomas's men gradually worked the ball back towards Guy's line, and after several attempts on the part of their backs, scored well in. The kick at goal was successful. St. Thomas's again attacked, but Jupp relieved by a good kick into touch. Some good rushes by Guy's forwards, in which Trubshaw, Watsons C. F. and D. P., and Wood were conspicuous, took the play into St. Thomas's territory. The ball coming out fine from the scrums, and the half-backs passing out sharply, Guy's back division put in some very useful runs. Twice Pye-Smith got to the full back, but Hicks failed to take his passes. At half-time the score stood :—St. Thomas's one goal, Guy's nil.

Guy's 2nd XV. v. St. Thomas's 2nd XV.

In the first part of the second half both sides pressed in turn. Guy's eventually gained the upper hand, and from a scrum near the visitors' line, Brydone obtained the ball, and passed to Jarvis. The latter player skillfully evaded St. Thomas's backs, and scored near the posts. Brydone converted. This brought the teams on easy terms. Guy's again pressed, but St. Thomas's forwards got away with the ball and took it to Guy's territory. Their backs then obtained the ball and looked like scoring, but Jupp was equal to the occasion, collaring his man before he had time to pass. Guy's forwards took the ball back to neutral territory, and some good passing by the backs put our rivals on the defensive. Guy's backs got the ball again, and after a good bout of passing, Pye-Smith scored. Brydone failed to kick the goal. From this out the home side pressed, and after several turns of good passing, Pearce scored well out. The kick by Rashleigh did not alter the score. Nothing further was scored.

Guy's are to be congratulated on their win. They played a really fine game. The passing among the backs was brilliant. Pye-Smith was the pick of the three-quarter line. His running and kicking was splendid. Sharman and Pierce also played well. The halves were rather slow at first, and passed too high, but afterwards made few mistakes. Jarvis surprised everybody by his good play. Jupp made a very useful full-back. The forwards all played well. They had plenty of dash, and nobody could possibly find fault with their heeling out. Trubshaw was the pick of the pack. Team:—

Guy's.—E. W. Jupp (back); J. Pierce, G. Shannon, C. D. Pye-Smith, J. T. Hicks (three-quarter backs); J. N. Brydone, W. Jarvis (half-backs); C. F. Watson, M. D. Woods, F. G. Rashleigh, D. P. Watson, K. V. Trubshaw, R. C. Lawry, A. W. Gater, A. Litttlewood (forwards).

GUY'S 2nd XV. v. OLD CHARLTONIANS.

Owing to the number of "scratching," the second an third had to unite forces and meet the Old Charltonians at Charlton on February 19th. The game was of a rather scrambling nature, and terminated in a victory for the home side by two goals to one. The Charltonians had a little the best of the game in the first half, and scored a try behind the posts; there was no difficulty in placing the goal. At the beginning of the second half our rivals again pressed and were able to score, the kick at goal again being successful. From this point Guy's had the best of matters, Pye-Smith, after a fine run, scored, and Brydone's kick added to the score. Trubshaw was unfortunate in not scoring once, being tackled just on the line, he lost the ball. Nothing further was scored. Dads' game at full-back will long be remembered by those who witnessed the game, and also by some of his opponents. Team:—

Guy's.—J. W. Dads (back); G. Cowper, J. T. Hicks, C. D. Pye-Smith, J. Pearce (three-quarter backs); J. M. Brydone, J. Jarvis (half-backs); R. C. Lawry, A. W. Gater, K. V. Trubshaw, —. Nunn, —. Littlewood, D. P. Watson, C. F. Watson (forwards).

United Hospitals Hare and Hounds.

THE INTER-HOSPITAL CHALLENGE CUP.

This event had been fixed for Saturday, February 26th, to be decided over the Lea Harriers and U.H.H.&H. 5-mile course at Chingford. The distance is 10 miles, the course being covered twice. St. Bartholomew's had promised to send a team which looked most formidable on paper, but they failed to appear for the competition; Guy's therefore had a walk over for the Cup. In spite of this there was a good race as there was also a sealed handicap under the combined auspices of the Lea & U.H.H.&H. and the Lea Hulton Cup to be competed for. The weather was fine and cold and the course was in good condition. A dozen men started when the signal was given, but of these, W. L. Baker (Guy's & Lea H), E. D. Dixon (Lea H.), and G. E. Mould (Mary's & Lea H.) only went round once. After crossing the plain and passing the "Woodman Inn," Barfield (Lea H.) and Carruthers (Cambridge University H.&H. and Lea H.) began to take the lead, the latter having a slight advantage of the former for about 2 miles, when Barfield quickened his pace and took the lead for awhile. At 4 miles, Carruthers again went forward to the first place, and in this order the first round was completed. On approaching the "Woodman" for the second time, Barfield caught up Carruthers and they kept together for a time until, approaching High Beech, Carruthers had to give up owing to the distance being too great for him. Barfield had the going to himself after this, and finished some distance in front of the others. Fremantle did not do such a good performance as he has on previous occasions, but as he had only just recovered from an attack of influenza this was not to be expected. Amongst the others, R. E. Brayne (Guy's) did a very good performance; after a "ding dong" race with Ormond he passed him by a fine sprint on the last hill about 150 yards from home.

The following are the times:—

Pos. in Scratch Race.	Start.	Hdcp. time.	Net. Time	Pos. in Hc.
1. F. Barfield (L.H.)	3.0	60.51	63.51	2
2. M. L. Kuttner (L.H.)... ...	3.0	63.8	66.8	6
3. F. E. Fremantle (G.&L.H.) ...	2.30	64.15	66.45	7
4. G. J. Brassey (L.H.)	5.0	62.20	67.29	5
5. R. E. Brayne (G.)	7.0	60.39	67.39	1
6. S. J. Ormond (G.&L.H.) ...	6.0	62.1	68.1	4
7. R. S. Roper (G.)	8.0	61.57	69.57	3
8. J. F. Robinson (G.&L.H.) ...	6.0	64.54	70.54	8

The trail was laid by J. E. Dixon (Lea H.), C. E. Vichard (Lea H.), B. Churchill (Guy's), and M. J. Rees (Guy's). The other officials were:—Starter and timekeeper W. T. Skinner (Lea H.); Judges Dr. H. A. Munro (U.H.H.&H.), and C. J. Brorman (Lea H.)

After the race there was a quiet dinner at the Royal Forest Hotel, after which the prizes were distributed to the successful competitors, the first having been presented by the President of the U.H.H.&H., Dr. A. Luff.

Papers by Guy's Men.

On the Serum Diagnosis of Typhoid Fever, with special reference to the Bacillus of Gartner and its Allies. By H. E. Durham, M.A., M.B., F.R.C.S.—*Lancet*, 15th January.

Conservative Surgery of the Spleen: A bloodless method of partial excision performed on twenty-two dogs with twenty-one recoveries. With notes of the blood examination before and after operation. By H. Martyn Jordan, F.R.C.S.—*Ibid*, 22nd January.

A case of complete removal of a Multilocular Cyst of the Pancreas: Recovery. By J. D. Malcolm, M.B., C.M., F.R.C.S.—*Ibid*, 29th January.

Opening Address on the influence of Pathology upon Therapeutics. Delivered before the Pathological Society of Reading on October 14th, 1897. By P. H. Pye-Smith, M.D., F.R.C.P. Lond., F.R.S.—*Ibid*, 22nd January.

The elimination of Bacterial Toxins by means of the Skin, with special reference to the presence of Tuberculin in the Sweat of Phthisical Patients. By Alfred Salter, M.D., B.S., D.P.H. Lond.—*Ibid*, 15th January.

A Case of Strangulation of two separate loops of Bowel. By A. E. Mayland, M.B., B.S. Lond.—*British Medical Journal*, 12th February.

Mitral Stenosis: A Statistical Inquiry. By D. W. Samways, M.D.—*Ibid*, 5th February.

Appointments.

CIVIL.

HARDENBERG, E. F. H., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Certifying Factory Surgeon for the Watford District.

SMITH, T. WILSON, M.D. Lond., has been appointed Honorary Physician to the Royal United Hospital, Bath, *vice* Dr. Cole, resigned.

NAVAL AND MILITARY.

SURGEON WILLIAM WENMOTH PRYN, R.N., is promoted to be Staff-Surgeon.

BRIGADE-SURGEON-LIEUT.-COLONEL H. J. W. BARROW has been transferred to Egypt, SURGEON-MAJOR A. P. H. GRIFFITHS to Bombay, and SURGEON-LIEUT. H. HEWETSON to Madras.

Birth.

SHELSWELL.—On February 19th, at Mitcham, the wife of Oscar B. Shelswell, M.R.C.S., L.R.C.P. Lond., of a daughter.

ED.—F. E. W.

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Calendar of Coming Events.

March.

Sat. 19.—Mr. Davies-Colley's take-in; Drs., O. Marriott and C. F. Watson; Cl., W. T. Milton.
1.15 p.m., Clinical lecture by Dr. Goodhart.
Meeting of Physical Society at 8 p.m.
G.H.R.F.C., II., v. Sutton. Final Tie, Surrey Cup.

Mon. 21.—Exams. for Junior and Senior Prizes for General Proficiency, and for the Michael Harris Prize and Sands-Cox Scholarship.

Tues. 22.—Schedules for Final Conjoint Exams. to be left at the Medical Office not later than this date.
Exam. for Golding Bird Gold Medal and Scholarship begins.

Wed. 23.—Mr. Lucas's take-in; Drs., W. R. Cazenove and J. G. Taylor; Cl., M. H. Thornely.

Thur. 24.—G.H.C.U., Devotional Meeting.

Fri. 25.—Lectures cease.

Sat. 26.—Last day for applying to Registrar for Form of Entry for Final M.B. Lond.

Tues. 29.—First Conjoint Exam. begins.

Wed. 30.—Mr. Golding Bird's take-in; Drs., W. B. Hope and A. R. McLachlan; Cl., G. E. Richmond.

Thur. 31.—Second Conjoint Exam. begins.

Guy's Hospital Gazette,

MARCH 19, 1898.

AT LAST

we've managed to get it. We've done the trick. We've won the Cup.

> Give me a gash, put me to present pain,
> Lest this great sea of joys rushing upon me
> O'erbear the shores of my mortality
> And drown me with their sweetness.
>
> PERICLES, *Act V., Sc. 1.*

> I cannot speak enough of this content,
> It stops me here: it is too much of joy.
>
> OTHELLO, *Act II., Sc. 1.*

Is it not written in the book of the Wise Man that "Hope deferred maketh the heart sick"? Yes, indeed, and we have waited long, and, be it confessed, impatiently, but after ten bitter disappointments, our hope has at length been realised. Till Tuesday last, the words of the immortal Shakespeare fitly described our condition—

> The miserable have no other medicine,
> But only hope.

Now, however, those times have passed away, and we start a new era. The famous poet of Stratford-on-Avon once remarked, that if only a sufficient amount of happiness be supplied, a sick man will recover without physic. So there should be an exceptionally low death-rate at Guy's during the next few weeks. The sadness of recent defeat at the hands of Richmond and the Old M.T.'s has been changed to the joy of victory over our redoubtable foes, yet friends, Thomas's. Once more are the words of the most famous poet of the 16th century verified—

> 'Gainst ill chances, men are ever merry,
> But heaviness foreruns the good event.

By this time, no doubt, our readers are wondering whether the equilibrium of the editorial brain has been permanently upset by recent events. Be that as it may, we feel that vulgar prose is totally inadequate for the fit expression of the general feeling at present pervading the minds of all Guy's men. What, then, were we to do? And here we must let our readers into what would be, on any other occasion, a journalistic secret. Our tame poet some time since, struck for higher salary, and with culpable lack of forethought, we omitted to engage a substitute. So that we were landed without anyone. We appealed to the office boy. After due consideration his effort was rejected as unsuitable. It started thus—

> The Rugger Cup has come to Guy's,
> We won it by one goal three tries.
> Upon our team there were no flies;
> It was the best of Final Ties
> We've ever seen; the shouts and cries
> Were heard at Kew, as you'll surmise.

and continued in a similar strain for 80 odd lines, each rhyme differing from any other. But that was quite enough. As the sub-editor remarked—

In Waste P.B. henceforth it lies.

We then tried our accountant—the man who adds up what our circulation ought to be, but isn't. He had evidently read the *Daily Mail's* account, and had got "Ivry" on the brain, for he started off—

Now glory to our Rugger team, whose play has won the prize,
And glory to Ap Tom Navarre, who got two splendid tries.
Ho! matron, sisters, nurses; Ho! patients young and old,
Shout, shout hooray and bless this day and our gallant Cup Team bold.
Ho! Batten, set your choicest viands whereon our teeth may crunch,
Ho! Minions, hasten to the "Ship" for gallon-loads of tea.

There he stuck, unable to find a word to rhyme with "crunch," so we had to leave him and apply to our sub-editor, but he was no good whatever. He wrote several rambling verses, of which the sample given is perhaps the best—

Right rampantly did run MacSime,
The light Rae flashed across the field;
The Trail was never far behind,
Thomas did TRY, Thomas' yield.

This was so involved and laboured that, as a last resort, we appealed to our head reader. He had just lately been to Her Majesty's, so there was no holding him. Off he went—

Remember March; the Ides of March remember,
Did not, on that day, Guy's win back the Cup?
What Hospital shall win it back from us
Without an effort? What, shall our crack team
That won the foremost prize of all the year,
But for the want of training shall they now
Not win us back the Atherletic Shield?
'Twer better they should win that back again
Than any other.

It was with difficulty that we stopped him, but he got so far from the subject in so little time that we could see that he was no use to us. Luckily at that moment a friend-in-need thrust into our hands a book entitled "Shakesperian Dictionary of Quotations," and though we could not find "Wassail-bowl Tyes" in the index, yet we managed to rake out the initial quotations, which more or less aptly fitted the situation. 'Nough said.

Papers by Guy's Men.

Some Remarks on Rectal Surgery. By T. Bryant, M.Ch., F.R.C.S.—*Lancet*, 5th March.

Morphomania.

CLINICAL LECTURE BY Dr. HALE WHITE,
November 13th, 1897.

Gentlemen,—You remember that in my last lecture, while discussing the question of anti-diabetic foods, I strongly insisted on the importance of your always testing for yourself whether or not they contain starch. Curiously enough, there was sent to the hospital last week a sample of a new food for diabetics, accompanied by the inevitable circular, setting forth the extraordinary advantages of this food over all others, and its complete freedom from starch.

Now, I can easily demonstrate to you by the simple method of pouring Iodine over the surface that this biscuit contains a large percentage of starch; in fact, it turns so blue as to go positively black. I have also a specimen of soya and another of gluten bread to show you the colour they ought to go with Iodine, viz., brown. This is a matter of great importance, and shows you that you must not lend an ear to the specious tales of the vendors. It is strange that the maker should have sent a sample to the hospital of all places, and would seem to indicate that the man is a fool as well as a knave.

Now, as regards the subject of to-day's lecture. I am very sorry, gentlemen, but there is no patient left in the Clinical wards of sufficient interest to make the subject of a clinical lecture. During the last few weeks we have used up all our material, and in John ward, for instance, all except three or four of the patients are up. So I propose to-day to speak to you of some strange things that one sees outside the hospital. Last week, on arriving home, I was informed that a lady had been waiting to see me for nearly two hours and a half; I naturally expressed some regret that she should have had so long to wait, but the servant said that it didn't matter as the lady had said that she didn't mind how long she waited. When she entered my room, though it was dusk, I at once recognised her as an old patient of mine, the victim of a chronic complaint; she began by saying that it was not for her old trouble that she had come to see me, but that she was in great distress and wanted me to help her. Of course that nearly always means, in our profession, an appeal for money; but when I came to look at her, I noticed that she still wore the same bangles and was as well dressed as before, so

that I decided that it could not be a question of money.

Of course, you know that we medical men have to be always ready for all sorts of horrible things, and thoughts of the divorce court flashed across my mind; but she was a most refined lady, and I at once decided that that was nothing to do with her distress. Well, then, I thought of morphia, and remembered that she always used to suffer agonising pain. And so I am going to talk to-day of chronic morphia takers; unfortunately the subject is especially important to us as so many of our own profession acquire the habit. To finish my tale: she waited some moments without speaking, and I said, "You needn't explain; I know what is the matter with you; you have been taking morphia," and then she told me all about it; the usual tale: how she had begun gradually taking it to relieve her pain, and how she was now unable to break herself of it; but that she felt that she might be able to give it up if she told some one of it, and knew that they would despise her if she took it again. She also told me how the mere fact of my being out had aided her, for she had now been three or four hours without taking any, and that was the reason of her being so willing to wait.

Now, she wanted me to believe that she would go straight home and throw away her syringe and bottles. Of course I didn't believe she would. It's very painful to have to tell a lady that you don't believe her, so I got over the difficulty by assuring her that I didn't disbelieve her, but that I thought it would be very much more satisfactory to have ocular demonstration of the performance of her promise, so I went back with her to her house, and this is what I found in her room: two ʒiv. bottles of hypodermic injection of morphia. Why, gentlemen, that is almost enough to last the hospital a year! And then I found a whole stock of syringes, and lastly I came across the following prescription—

℞ Injectio Morphinæ Hypodermica ʒii.
To be used as directed.

I think this is the most horrible prescription I ever heard of, I cannot understand any doctor doing such a thing; look at the awful temptation she was exposed to. She had never had and never could have any children. She was in great trouble, was obliged to wander from health resort to health resort; she was not in a condition to be able to keep house properly, and last of all, she suffered from this chronic pain, and he puts into her hands this prescription! I feel I shall have done well in this course of lectures if I have persuaded you *never* for any consideration or under any circumstances whatever, to write such a prescription for any living person. I am perfectly certain that he wrote it, the cases are right, there is the ℞ at the top, and I am sure she did not write it herself.

Of course I took everything away with me and told her that she must not get any more, and said that I would send her a prescription to get her through the night; and typical of her mental condition is a letter which I received from her. The letter has no beginning and is unsigned, and it was sent by bearer, and there are heaps of things underlined. Well, I sent her a prescription to get her through the next night, and I got another letter the next day (that is 48 hours after I saw her and 24 hours after the first letter), which is a much better letter, and shows a distinct improvement. You will notice the letter begins, Dear Dr. Hale White, and that she signs her name at the end. She begins by saying how sorry she is that she cannot come to see me, There is absolutely no reason why she shouldn't. I will just give you the notes of one or two other cases, and then we will extract the symptoms.

I received a sad letter from a doctor, which winds up by asking me to help him get a post on board some ship. In his next letter I got the inevitable appeal for money, and find that he has gone into partnership with another doctor, who is himself a morphia taker. The next letter I had came from this partner, a man I had not the least knowledge of, asking me to help his friend, and assuring me that he had entirely given up taking morphia. Well, I wrote to another Guy's man, who had been in the same year as this unfortunate man, and also to Dr. Wilks, and we together decided to send him a letter saying that if he would send us up his unpaid bills, providing they were not preposterous, we would see about them and enable him to start afresh. We sent him a letter to that effect, and we never had another line from him.

Some time afterwards we heard how right we were in acting as we did. The truth of the case came to light from a doctor who knew this man and had tried to save him.

The third case I shall bring before your notice is that of a journalist, aged 41; he was taking gr. xx. a day, and to show you his mental condition, he stated that he could not write more than a few words without taking morphia. He complained of being suddenly

seized with panics; thus, he was seized with one at a wedding-breakfast and had to come away. He was addicted to alcohol as well. He was very anæmic and thin; he had a long thick scar of hypertrophied skin from his wrist to half-way up his arm; his urine was increased; he had lost both sexual desire and sexual power; he had no tremors or sensory symptoms; his hair and skin were dry. He was very forgetful, and another noticeable thing was the way he rambled on when talking; if he once started it was a quarter of an hour before you could stop him.

We will now consider the cases together.

Causes.—1. Neurotic people.

2. Able people who have such a belief in their strength of mind that they think they can give it up at any time. You find subjects of this kind among medical students, and they are generally looked up to as brilliant men who have a definite opinion of their own on any given subject, and are usually regarded by their fellow students as authorities on various matters.

3. People who are the subjects of chronic pain, such as the pain of rheumatoid arthritis, or very often of sciatica, or very often of pelvic troubles. There is a case in Clifford Allbutt's latest book where the pain was due to adhesion of the stomach to the abdominal wall. Women who have had trouble with the pelvic organs often experience a very distressing sense of dragging weight and pain. This class of case is generally the fault of the doctor.

4. Then there are the feeble persons who never ought to have been born, who simply cannot cope with the ordinary difficulties of life. Whatever they take up goes wrong; they gradually drift from bad to worse, irresolute and feeble-minded.

5. Lastly, there is another class of feeble-minded people who will take intoxicants under any circumstances. If they don't take morphia they fly to alcohol, and if they don't take these they dose themselves with chloral and bromides.

The next point of interest is—

The amount taken.—The largest in the literature is a case of which Dr. Lauder Brunton told me, and which he has published in his latest book; it is that of a member of parliament who took gr. xxx. a day. Gr. xx. is the highest daily amount that I have had experience of; much more frequently it is about gr. v. a day. They nearly always inject it into their left arm, but occasionally when the arm gets so bad that it begins to suppurate I have known them slip the syringe into the trouser pocket and inject it into the leg.

And I have known another morphomaniac who, when the desire came on him, could not bear waiting for the morphia to be absorbed in the ordinary way but used to inject it straight into a vein; his craving for the drug was simply indescribable. And now we will go through the symptoms and we will divide them up into mental and physical.

Symptoms. — *Mental.* — Now, the essence of their mental symptoms is simply this: that they are liars, and most contemptible and despicable liars at that; there is a vast difference between their lying and the silly purposeless lying of a confirmed lunatic; if you go round to Bethlem and ask one of the lunatics you see there if he owns a coach and four, he will at once say, yes; but a morphomaniac conceives and carries into effect a consecutive series of lies and deceptions with the sole purpose of getting morphia out of you. You absolutely must never believe them, or place the slightest reliance on their statements. For instance: I once went to a doctor's room, a man whom I knew to be a morphia taker; I caught him in the act of putting the bottle down. I was not going to accuse him of it, but he went out of his way to tell a lie: "Ah," he said, "you think you've caught me this time, don't you?" "I don't think," said I, "I *know* what you were doing." "Ah," said he, "you're wrong again; I got this morphia for a patient, and I was seeing if the syringe would work." We tried to cure this man by isolating him. We sent him to a private home, of course taking care to deprive him of all his morphia; but, unfortunately, there was a small stock of this drug kept in the establishment for the use of patients, should occasion demand it; he got up, smashed the case in which it was kept, and also stole money with which to bribe the servants.

Amongst other things, you will notice that at first the man is able to work, but later on he lets things drift and slide; if you make an appointment with him he will probably be twenty minutes late; if you ask him to see a patient in the morning he will put it off to the evening, and so on. In the last degree of morphia poisoning the patient becomes slovenly, dirty, untidy; this is a very bad sign. No doctor can take morphia, and continue to take it, without his practice going to the dogs. If it is your misfortune to have to go and see if anything can be raised on the practice, you will find that there practically is none; patient after patient has fallen away as the natural result of his lack of method and unbusiness-like habits. In the same way you will find that he has kept

no books for a long time; or, if he has, that they are in inextricable confusion.

Now let us pass on to the physical signs.

Physical.—I will first give you the more usual ones. These patients are generally thin, sallow and anæmic, they look prematurely old, their hair falls out, their teeth decay, their nails become brittle, and, as you would naturally expect, there is often great constipation. Then there is loss both of sexual desire and of sexual power, and this occurs in women as well as in men; there may be amenorrhœa; the mouth is dry. As you would expect, they often have indigestion; and, lastly, their pupils are contracted. I always think that the account of the symptoms given in the books is bad, the above are the symptoms I have noticed in my own cases, here are a few rarer ones out of the books. Slight pains, tremor, ataxy (writing may become difficult), milk crasis (this is rare), urine increased. The sweat is occasionally increased, though as a rule you get a dry skin. Whatever the end of these cases may be, I don't think we can say that the morphia habit kills in itself. The takers of morphia are "bad lives," and trivial ailments usually carry them off.

The *Diagnosis* seldom offers any difficulties, you strip their arm and you see the scars. The only difficulty comes in their being so deceitful, you can always clinch your diagnosis by isolating them for a day; there is such an irresistible craving that they confess at once. Then as to

The *Prognosis*.—You will find that 70 per cent. relapse after being cured, and you never hear of any getting well after taking to it the second time, so that out of the 70 per cent. of relapses, there are practically none cured. I, at any rate, have never seen one. I believe there are some recorded, but they must be very rare. Now, you will naturally say, "Is there any treatment for this terrible habit?" Well, in

The *Treatment* of a mild case, you must try and see if he will give it up. Of course, take everything away, and if they have not gone beyond gr. v. a day there is a slight hope of success. I know a doctor who was one of the most brilliant men I ever saw at Guy's who voluntarily and completely gave it up. But if they are sallow and anæmic, then isolation is absolutely necessary; it must be complete, and you must be most careful to see they take nothing with them. You must accompany them to their new room, you must have the boxes left outside and then you must tell the patient to strip; you must make him strip absolutely naked, and then you must take his clothes away and bring him his pyjamas. It is really a terrible thing to have to do, and I know of nothing more humiliating than to have to treat an intelligent man in this way. But I have known a doctor taken in, even after taking these precautions; the man had sewn a bottle and syringe in the hem of his pyjamas. In former days the treatment was to isolate the patient and to stop the morphia there and then. I was once called up to see a man who had been isolated in this way; and the nurse told me that he had been very restless, had jumped out of bed and had walked about in an agitated way. She had expected this and took no notice of it, but when he got back into bed he had rigors, and broke out into a sweat, became very pale, with feeble pulse and all the symptoms of collapse. She therefore sent for me, and when I got there I found him almost pulseless, cold and collapsed. He didn't, however, have, as they often do, repeated diarrhœa. Nowadays we don't often break off the habit so suddenly, and if we see collapse coming on we give morphia to pull them through. Just before the collapse they get delirium, which is often very dangerous to the attendants; for instance, in the case I have just mentioned it was only by deception that the nurse could send for me, the patient told her he would kill her if she sent for the doctor. They will often commit suicide while in this state of mind, so that it behoves one to be wary as to leaving razors, etc., about. The patients will tell you afterwards that they went through a perfectly indescribable state of mental torture on first being deprived of their morphia. What is the cause of this extraordinary condition? Some very ingenious person has put forward the theory that the condition is due to the presence of oxydomorphines in the blood, the oxydomorphines being a more highly oxidized state of the morphia, and they think that the habitual morphia takers do not get into this state, because the next dose of morphia acts as an antidote to the oxydomorphine formed from the previous dose; you may think what you like about it. The fact remains that you can cure a case just as well and without running the risk of inducing collapse by diminishing the dose gradually; thus, in a patient taking gr. xx. a day you reduce it first to 15, 10, 5, grs. on succeeding days, so that you have cut it off completely in a week, and in favourable cases you can do this without much difficulty. But the patient won't like it, and you must watch very carefully. He may suffer

a little at first from tremors, ataxy or dyspnœa, or from mental depression and sleeplessness, but they are not likely to be dangerous.

You may ask: Supposing we are diminishing the dose gradually, is there any drug we can give them to help them? Well, you will find that you must give them something; they demand it; they know perfectly well what they have got to go through. So you order something. In the case of the lady I first mentioned to you, I ordered Codeina; why, I don't know. It is one of the alkaloids of Opium, and I thought, perhaps, it would not make such an absolute break to the habit. Similarly she implored me to prescribe her something to make her sleep, and I gave her Chloral and this did give her some sleep. You may also give Bromides.

If the collapse is very bad, you must give Caffeine subcutaneously as stimulant. Whatever you do, don't forget to feed them up; give them any delicacies they may fancy. They are often troubled by nausea or vomiting. Give them whatever they think they can take; oysters and champagne, etc.; if they can't keep anything down, you must feed them per rectum. One other point: occasionally, but very rarely, their sexual appetite returns quickly; so it is as well to try and secure that they shall be nursed by one of their own sex.

Next, what are you to do at the end of the work of isolation? The best way is to send them to some home where you are sure they will not be able to get any morphia, and to try and get some attendant who will go out and be responsible for them. Of course it must be an intelligent person who can talk to them and cheer them up; there is no need to isolate them if you can be perfectly sure that they can get no morphia. Unfortunately there generally comes a time when the patient insists on leaving the home. The best possible thing is to get them to travel with some experienced person, such as a doctor who can detect if they begin to take morphia again. You must have some control; it certainly is not safe to leave them to themselves for the first twelve months. Keep them under supervision somehow or other; months after they have been cured there may suddenly come a perfectly irresistible desire to take it again. Feed them up and get them out into the fresh air.

Finally, don't go away with the idea that this lecture has anything whatever to do with opium-eating in the East. Since the Royal Commission it has been well known, that the opium habit out in the East is not responsible for any one of the evils I have been mentioning to you.

Almost every man on the Commission, with the exception of a bigoted few who went out with their minds fully made up as to the awful effects of the habit, came to the conclusion that no evil effects followed, in the case of these Eastern peoples, of even as large a dose as gr. 200 a day. And to show you to what an age they live — of the confirmed opium-eaters examined by the Commission 215 were between 50 and 60 years of age; 52 between 60 and 70; 18 between 70 and 80; one was aged 80, and another was 106.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Circulatory System.

Philip	19.	Ulcerative endocarditis.
Mary	19.	Mitral stenosis.
	22.	Mitral regurgitation.
	26.	Mitral regurgitation.
	38.	Mitral stenosis.
Stephen	2.	Aortic aneurysm.
	26.	Mitral stenosis and regurgitation. Tricuspid regurgitation.
	37.	Mitral stenosis.

Nervous System.

Philip	7.	Chorea.
	20.	Acute myelitis (specific).
	40.	Paralysis of both legs (traumatic).
Stephen	32.	Chorea. Mitral stenosis and regurgitation. Aortic regurgitation.
	34.	Syphilitic cerebral disease.
	40.	Neuralgia.

Alimentary System and Abdomen.

Philip	16.	Gastric ulcer.
	25.	Dilated stomach. Albuminura pityriasis rubra (local).
	30.	Typhlitis (1st attack).
Mary	4.	Gastric ulcer. Hæmatemesis.
	5.	Chronic intestinal obstruction. Growth in sigmoid.
	7.	Gastric ulcer. Moveable kidney.
	10.	Ovarian cyst.
	17.	Hepatic cirrhosis. Ascites.
	20.	Enlarged spleen. Hæmatemesis.
	21.	Gastric ulcer.
	28.	Ascites. Hæmatemesis. Icterus.

Mary 32. Chronic peritonitis.
33. Gastric ulcer.
50. Sarcoma of ilium.
Stephen 6. Appendicitis. Perforation. Operation January 31st.
16. Appendicitis.
31. Pancreatic cyst.
33. Appendicitis.

Genito-Urinary System.

Philip 3. Chronic interstitial nephritis. Renal asthma.
4. Chronic interstitial nephritis.
5. Diabetes mellitus.
6. Acute nephritis. Neuro-retinitis.
17. Acute tubal nephritis.
23. Hæmaturia.
27. Bright's disease.
Mary 11. Acute tubal nephritis.
Stephen 2. Acute nephritis. Hæmaturia. Systolic apical bruit.
15. Diabetes mellitus.

Respiratory System.

Philip 1. Empyema.
8. Pleuritic effusion.
9. Phthisis.
12. Empyema.
13. Laryngeal stenosis. Tracheotomy.
18. Pleuritic effusion.
24. Phthisis.
28. Acute bronchitis and emphysema. Albuminuria. Systolic bruit.
33. Laryngeal obstruction.
34. Bronchitis and emphysema.
35. Right empyema (spontaneous opening).
37. Chronic pleurisy with local consolidation of left lung. Probably tuberculous.
39. Pleuritic effusion.
Mary 1. Broncho-pneumonia.
12. Phthisis.
14. Lobar-pneumonia.
31. Lobar-pneumonia.
34. Left pleurisy with effusion.
35. Bronchitis and broncho-pneumonia.
41. Chronic pneumonia. ? Tubercular.
44. Phthisis and bronchitis.
45. Lobar-pneumonia.
Cot 51. Left empyema.
Cot 54. Convalescent from pneumonia.
Stephen 3. Emphysema. Bronchitis. Enlarged liver.
13. Bronchitis. Albuminuria.
18. Bronchitis.
19. Pleurisy.
30. Phthisis and hæmoptysis.

Miscellaneous.

Philip 10. Psoriasis.
15. Enterica.
Philip 21. Rheumatism.
22. Psoriasis.
31. Eczema.
36. Erythema nodosum.
38. Myxœdema.
Mary 3. Eczema.
23. Enterica.
25. Exopthalmic goitre.
26. Rheumatism. Mitral regurgitation and obstruction from previous attack.
29. Pityriasis rubra.
36. Acute rheumatism. Systolic apical bruit.
39. Chlorosis.
42. Exophthalmic goitre.
46. Chlorosis.
Cot 52. Eczema.
Stephen 9. Enterica.
14. Hydatids.
29. Rheumatism and bronchitis.
35. Enterica.
38. Acute rheumatism.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman 1. Syme's amputation for infantile paralysis.
2. Mastoid abscess. Antrectomy.
5. Vesical calculus. Lateral lithotomy.
8. Lupus of foot (scraped.)
10. Enlarged prostate. Catheterism.
11. Mastoid abscess. Antrectomy.
12. Abscess in thigh. ? Necrosis of ilium.
18. Hydrocele, acquired. Aspirated and injected with carbolic.
Charity 7. Intestinal obstruction from pelvic growth. Lumbar colotomy.
8. Double hydrocele. Right congenital; left funicular.
16. Tuberculous carpus.
20. Fractured ribs.
Astley Cooper 19. Injury to kidney. Hæmaturia.
14. Fractured upper jaw. Surgical emphysema.
29. Cut throat.

Cases under Mr. Davies-Colley.

Luke 6. Cyst in inguinal canal. ? Hydrocele of cord. Excised.
9. Arthritis of shoulder and elbow. ? Syringomyelia.
10. Cystitis. ? Gout.
13. Cystic lipoma over sacrum. Excised.
Lydia 3. Submammary abscess after sternal caries. Incised.
9. Cleft palate, æt. 21. Plastic operation.
18. Tuberculous ankle.
22. Congenital hernia. Radical cure.
Cornelius 2. Perforating wound of knee-joint.

Cases under Mr. Lucas.

Job 2. Epithelioma of floor of mouth and glands.
7. Carcinoma of antrum. Partial removal. Recurrence. Proptosis and loss of sight. Eye removed.
18. Ununited fracture of patella. Wired.
24. Sarcoma of rectus. Exploration.
25. Strumous dactylitis.
Charity 3. Tuberculous mastitis. Bilateral.
4. Tuberculous osteitis of ulna.
23. Rigidity and flexion of knee after suppurative arthritis. Tenotomy.
Cot. Ununited fracture of tibia. About two months.
Lydia 15. Old erasion of elbow. Persistence of disease.

Cases under Mr. Golding-Bird.

Lazarus 7. Congenital inguinal hernia.
9. Mastoid abscess. Antrectomy.
11. Stricture. Femoral venous thrombosis.
14. Stricture with urethral abscess.
22. Tuberculous elbow.
Martha 1. Tuberculous ankle.
2. Iliac abscess. Lumbar caries.
4. Ankylosis of knee. Gonorrhœal.
6. Strangulated umbilical hernia. Kelotomy.
7. Rodent ulcer of face. Excised.
8. Carcinoma mammæ. Excised.
17. Ulcerative proctitis.
18. Gummatous periostitis of fibula.
19. Pott's fracture.
20. Rectal epithelioma.
22. Lumbar caries.
Cot D. Pott's disease with lumbar caries.
Astley Cooper 3. Fractured femur.
Cornelius 9. Compound fracture of olecranon.
15. Subcoracoid dislocation of shoulder.

Cases under Mr. Jacobson.

Dorcas 2. Tuberculous cystitis. Urethra dilated and Ag. NO_3 applied.
3. Stokes-Gritti's amputation for infantile paralysis and ulceration.

Cases under Mr. Symonds.

Luke 16. Tuberculous ulcers of leg.
17. Œsophageal stricture. Bougies passed.
Martha 13. ? Gonorrhœal synovitis of knee.
15. Thyroid cyst and adenoma mammæ. Enucleation and excision.
Job 10. Epithelioma of larynx affecting epiglottis.
11. Epithelioma of larynx. Excision of larynx.

Cases under Mr. Lane.

Job 12. Fractured clavicle comminuted. Wired.
13. Ununited patella. Wired.
Job 14. Gangrene of both legs. ? Cause. Double amputation.
Dorcas 4. Appendicitis recurrent.
5. Gastrotomy for œsophageal growth.
Cot. Recurrence of deformity after plastic operation for double dislocation of hip

Cases under Mr. Dunn.

Lazarus 2. Lupus verrucosus of face.
Martha 10. Ulceration on left breast. ? Gummatous.
Cot C. Flail knee joint after destructive epiphysitis.

"Clinical."

John 2. Dilated stomach after suppurative peritonitis.
3. Chronic Bright.
8. Bronchiectasis. Failing heart.
9. Mitral and tricuspid disease.
10. Pleurisy.
12. Diabetes.
13. Perforating gastric ulcer—recovery.
14. Hydatid of liver, 36 years' history.
15. Pneumonia.
Miriam 18. Morbus cordis. Pigmentation.
21. Pneumonia.
23. Tuberculous peritonitis.
24. ? Addison's disease.
25. Subacute Bright.
27. Acute Bright.
29. Lymphatic obstruction.
31. Leuchæmia.
32. Enlarged liver. Abdominal cyst.
Cot. 33. ? Intussusception.
35. Broncho-pneumonia.
34. Laryngeal obstruction. Tracheotomy. Tube finally removed after 20 days.

A Case of Acute Tuberculous Peritonitis.

W. D., æt. 23. Admitted into John on February 1st, 1898, for weakness, abdominal pain and distention. For the past eighteen months he has worked at a cement factory. This work has nothing to do with lead, and there is no history of patient working in lead at any time. The family history is good, there being no history of tubercle. Eight years ago patient had pleurisy. The left pleura was tapped and four pints of fluid were withdrawn. He had a second attack of pleurisy last year when he was in Philip under Dr. Shaw. He was tapped, and seven pints of fluid withdrawn from the left chest. There is no history of syphilis. Patient states that for the past nine months he has had a cough,

but has not expectorated much, and has never coughed up any blood.

Patient dates the commencement of present illness about a fortnight before admission. The onset was gradual. He first noticed a feeling of weakness, and on several occasions fainted in the streets, losing consciousness, and remaining in this condition for some time. During this there was no pain, no vomiting and no headache, but patient lost his appetite, and the cough got rather worse.

About a week after the commencement of symptoms patient first noticed that his abdomen was distended, since when it has slightly increased in size. During the illness there has been slight diarrhœa and occasional attacks of a "cutting" pain across the umbilicus. Patient says that for the three days before admission he had passed no urine, but that this is the first time he has had any trouble with the urine.

When admitted, patient seemed ill and weak. The tongue was moist and furred, and there was a well-marked blue line along both gums, but no history of lead could be obtained. The abdomen was distended and moved on respiration. There was a considerable amount of fluid present. The liver was not enlarged, but was displaced upwards, the liver dulness beginning at the upper border of the fifth rib. No abnormal tumour could be made out on palpation, but the abdomen was slightly tender.

The chest was flattened below the left clavicle, but was otherwise normal anteriorly; posteriorly the resonance was diminished below the ninth rib on the left side and below the eighth rib on the right side. The vesicular murmur and vocal resonance were diminished at the bases behind, and there were also a few medium mucous râles and rhonchi on the right side. There was no sputum. The urine was normal, containing no albumen. Heart normal.

The patient thus had ascites, with signs of bronchitis at both bases, and a blue line. Mainly by a process of exclusion, a diagnosis of tuberculous peritonitis was made.

For three days patient remained in very much the same condition. He was treated with Mist. Ol. Morr. et Ferri and Ung. Hyd. Co., p.a. He, however, got more drowsy, and the abdominal pain increased.

On February 4th the pain had increased, and an I.M.H. was necessary. The abdomen was more distended, the note anteriorly being quite tympanitic, the flanks being still dull. The pain and tenderness increased.

On February 5th the tongue was brown and rather dry, and the abdominal pain and tenderness had much increased, there being general hyperæsthesia of the abdominal wall. The temperature had, so far, been about normal in the morning, going up to about 101° in the evening.

On February 6th he was much worse. He commenced to vomit, bringing up large quantities of greenish, but not foul-smelling, fluid. The tongue was brown and dry, and face pinched and eyes sunken. The abdominal pain was still intense, and the abdomen moved only very slightly on respiration. The pulse was 90 in the morning, but gradually increased to 130 during the day. The diarrhœa ceased, and bowels had not acted for thirty hours.

The patient was obviously suffering from an acute peritonitis, and Dr. Taylor and Mr. Dunn decided to operate. An incision was made in the linea alba, midway between the umbilicus and pubes. The fluid was allowed to escape very gradually. The amount let out amounted to about six pints. It was clear, light yellow serum, and on bacteriological examination proved to be sterile. Mr. Dunn then drew out and examined several loops of intestine, but saw no tubercles. The sigmoid was drawn out and found to be inflamed, with flakes of lymph attached. The cæcum and appendix were then examined, and the appendix was found to be intensely red, with flakes of lymph adherent to it. It was quite free, and there were no adhesions. Mr. Dunn then made a second incision—in the right iliac fossa, and through this removed the appendix. It contained no concretion, and when slit open afterwards appeared normal internally.

The wound in the mid line was sewn up, while, after irrigation with boiled water, the peritoneum was drained through the wound in the right iliac region.

The question was now raised as to whether the case was not, after all, one of appendicitis, the fluid present being of the nature of ordinary inflammatory exudation, but Dr. Taylor thought that the condition of the appendix was not sufficient of itself to explain the patient's peritonitis.

For a time after the operation patient seemed to do well. His pulse, improved, and he was easier. About eighteen hours after the operation, however, the vomiting recommenced, and, though relieved for a time by washing out the stomach, it soon returned. The abdominal wounds did very well. A considerable amount of fluid drained away at first, but two days after the operation the dressings were quite dry, and on the third day the drainage tube was removed. The abdomen was not distended, the fluid not having re-collected; there was very little pain or tenderness, and the abdomen distinctly moved on respiration.

On February 9th he was much worse, the pulse was feeble and more rapid, the vomiting still continued, and the vomit was now very foul. The nutrient enemata and hot-water injections were not retained. The face was still more pinched, and patient got worse on the 9th, and died on the 10th, eighty-four hours after the operation.

At the post-mortem, calcareous bronchial glands were found, and signs of recent and old tubercle in both lungs. The intestines were covered with small tubercles, and there were deposits of tubercle on the under surface of the diaphragm, and on the mesentery. The brain showed small deposits of commencing tubercle.

P. T.

Exact Localization by Rontgen Ray.

THE first two illustrations represent an instrument which is a modification of one described in the *British Medical Journal*, January 1st, 1898. It has for its object the exact localization of bodies capable of being shown by Röntgen Ray. It is essentially a convenient apparatus for taking two images on one photographic plate, one exposure being given when the X-Ray tube is to the right—the other when to the left of the middle line, the object to be skiagraphed remaining stationary the while. Fig. 1 shows the apparatus arranged ready for exposure. Fig. 2 shows the finished negative in position for the measuring process. The detailed working of such an apparatus has been so excellently described in the *British Medical Journal*, that it is unnecessary for me to do so here, I will therefore merely point out its efficiency, by quoting the first three cases in which we have used it in this hospital.

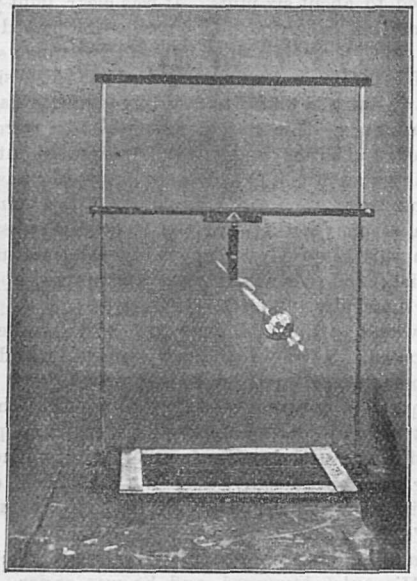


FIG. 1.

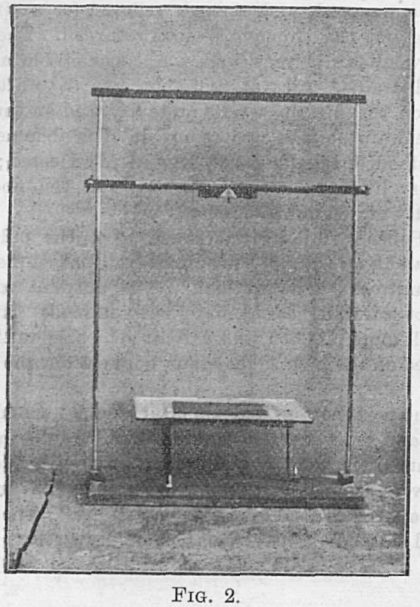


FIG. 2.

FIG. 3.

CASE I., Fig. 3, is a double image skiagraph taken to localize a needle in a hand. We calculated that the needle was one eighth of an inch beneath the skin of palmar surface of hand. The operation confirmed this calculation.

FIG. 4.

Case II., Fig. 4, is a similar case to above, the needle being estimated at a depth of three-sixteenths of an inch. In this case we drew the position of needle on the skin, and it was a matter of a few seconds after the first incision was made until the needle was extracted.

These two cases do not appear difficult for the operator, the needles being so superficial, but it is no uncommon thing for the operator to be searching in muscle and tendon, when the foreign body lies in the superficial fascia, and this, even when an ordinary skiagraph has been taken. Case III. exemplifies this.

Case III. was admitted under Mr. Davies-Colley for a bullet in the hand, the result of an accident ten days previously. On admission, the wound was very septic, the hand extremely swollen and œdematous. I would call special attention to this latter fact, as the measurement given below may otherwise appear impossible. The hand was screened, and afterwards skiagraphed in the ordinary way. Fig. 5—The bullet, which was said to be the size of a pea, was clearly visible between the heads of the metacarpal bones of the first and middle fingers—a little nearer that of the first.

At the operation, incisions were made back and front until they met—but after a prolonged search no bullet could be found, a drainage tube was inserted between the bones, and the hand dressed with iodoform gauze and blue wool. On the following day—the dressings being removed, I obtained a double skiagraph. (Fig. 6.)—This negative showed the bullet to be $2\frac{1}{16}$ inches beneath skin of palm, and though this measurement appears enormous, (the average adult hand measuring about one inch through this part), on account of the œdema and swelling it was possible. Subsequently Mr. Davies-Colley made a thorough search among the deeper tissues, continuing both anterior and posterior incisions downwards for this purpose. This proving futile, the sides of the wound were investigated with a needle-probe, when quite unexpectedly, a much flattened bullet rolled out from its hiding place, a very little distance beneath the skin of the back of the hand, on the radial side of incision. Had this incision been a quarter of an inch more to the radial side, the scalpel must have struck it at almost the first cut. It must be clearly understood that the extreme swelling of the hand made the operation a much more difficult one than any but those who saw the case can believe. Œdema, however, does not embarrass the X-Rays, and I venture to suppose, that had the double skiagraph been taken at the outset, the bullet might have been extracted from a minute incision at the back of the hand, though I admit, that on account of its septic condition, the hand may have been benefited by the free drainage afforded by the incisions.

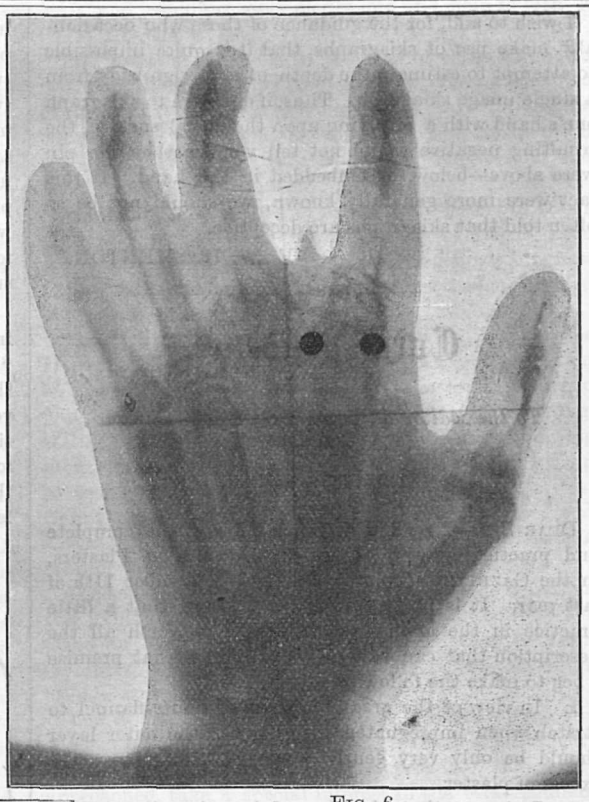


Fig. 6.

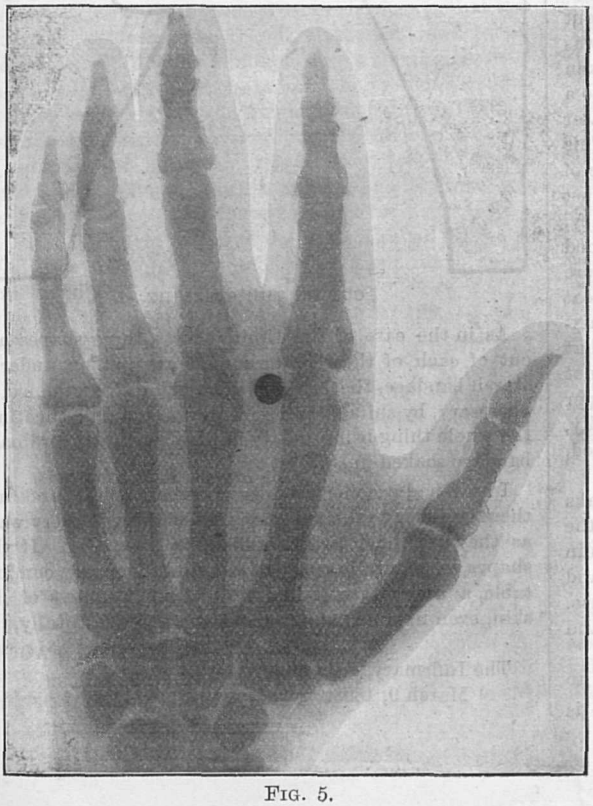


Fig. 5.

I wish to add, for the guidance of those who occasionally make use of skiagraphs, that it is quite impossible to attempt to estimate the depth of a foreign body from a single image skiagraph. Thus, if one were to skiagraph one's hand with a pin lying upon the dorsal surface, the resulting negative would not tell you whether the pin were above—below, or embedded in the hand. If this fact were more generally known, we should not be so often told that skiagraphs are deceptive.

E. W. H. SHENTON.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Plaster Splints.

DEAR SIR,—I read with much interest the complete and practical papers of Mr. R. Howard on Plasters, in the GAZETTES of August 21st and September 11th of last year. It is perfectly true, as he says, that a little practice in the application of Crofts is worth all the description that can be written, and with that premise I beg to make the following remarks:—

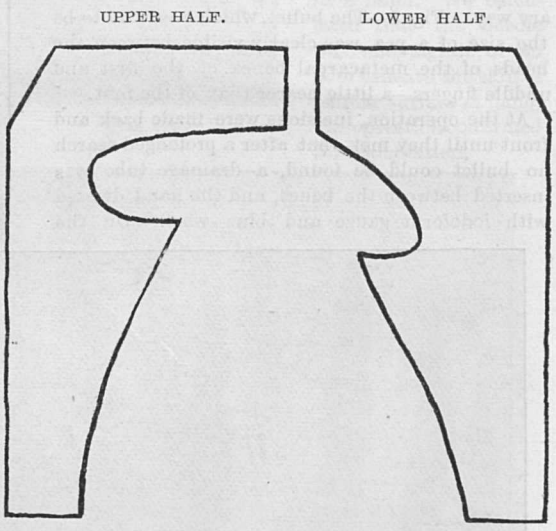
1. In view of the great tendency of house-flannel to stretch when impregnated with plaster, the outer layer should be only very gently "stroked" to remove the excess of plaster.

2. I observe that Mr. Howard is rather silent about the mixing of the plaster. A useful "tip" which I was put up to by a plasterer is as follows:—Plaster is taken from the tin in both hands and allowed to fall into a basin containing the required quantity of cold water by a rubbing or kneading movement of the hands. This is done until the plaster appears above the surface of the water: the above amount, in my experience, is just sufficient to produce a mixture of the proper consistency. This process in mixing is better than the usual method in many ways:—firstly, the plaster is mixed more uniformly—there are no lumps. A second and great advantage is that the plaster does not set till the mixture is made by stirring it up with the hands, so that if other details in the preparation of the Croft are not finished, the final mixing can be delayed till the proper time, and can then be completed in a moment. Thirdly, it is, on the whole, I think, a more economical method, involving less waste of plaster.

Concerning the starch bandages, Mr. Howard speaks with some hesitation. I think your readers will find the following method to answer well. The rolled muslin bandages are soaked in boiled starch, fairly thick, and when wrung out are in a fit condition for immediate use. Another plan is to dry them after being starched, and before use to dip them in hot water.

The Croft principle is capable of being applied to "Sayre's jackets" and "spicas" for the thigh, and is in every way preferable to the method of bandage and plaster. I have found, however, that *three* instead of two layers of house-flannel must be applied, the outer two being soaked in the plaster mixtures. By these means a strong and comfortable jacket can be made, and one much lighter than the usual case in which an unfortunate patient is fixed up. Of course I do not presume to compare them with poroplastic jackets, but when the money or the maker for the poroplastic is not forthcoming, the Croft jackets form a very efficient substitute.

In the case of thigh spicas used in the treatment of fractures of the femur after six weeks in a "Hodgen" or "long Liston," a little ingenuity is required to cut out the flannel in suitable shape. It is much more convenient that the pieces—instead of being applied at the sides with the division in front and behind, as in a Croft for the legs—should be put on the front and the back of the limb with the divisions at the side. For the right leg, for example, the pieces are shaped thus:—



CUT ON THE STRAIGHT.

As in the case of the Croft jackets, three shapes are cut of each of these patterns and are put on under a starch bandage, the hip and knee being strengthened, if necessary, by suitable pieces of perforated zinc sheeting, the whole thing being neatly finished off by an ordinary bandage soaked in starch.

I have had excellent results with these splints and find them superior to the ordinary plaster spica in every way, as they are much lighter and quite as strong. If the shapes are carefully cut, patients find them very comfortable, and it is rare to find chafing and soreness of the skin, even in young children.—I am, yours faithfully,

R. HILTON FAGGE.

The Infirmary, Leicester,
March 9, 1898.

Much-Needed Reform.

Dear Sir,—This is at Guy's the day of reform, and what is more, of reform in a practical direction—for instance, the alteration of the sisters' hours for dinner from 5.30 to 7. (Would any man consent to be compelled to dine at 5.30?) Also, as another example, the permission of sisters and nurses to leave the hospital in bicycling dress.

So much by the way. The subject of this is a more serious one, for I wish to enquire what purpose is served by the attendance of the sister or staff nurse throughout the afternoon rounds of the physician and surgeon.

We seem to be recognising more and more here that the sisters and nurses are, firstly, women, yet the physician may sit on a bed, the surgeon on a stool, while operating, the H.-S. or H.-P. on a locker, or where he will, but the sister must stand the whole time. Further—and the process would not be so irksome were this not so—she has nothing to do, and, therefore, serves no purpose in nine out of ten minutes so spent. In a male medical or surgical, often in a female surgical ward, I have seen a two hours' round completed without the sister being called upon to do anything except hand a towel to the member of the staff after washing his hands. The few questions asked her usually relate to some question of diet, sleeping, etc., which the H.-P. or H.-S. should, if he doesn't, know all about. And again, in these days of aseptic sponges and dressings, a sister's work in the operating theatre is of the lightest, and yet they must stand the whole time.

Alternations suggest themselves in shoals, *e.g.*, that the sister should, during the rounds, sit at the ward table, and go to the bed when summoned by a small gong-bell. On the meanest grounds of economy the present arrangement is bad, for the sister might be doing useful things instead of so wasting her time: on the highest grounds of humanity and courtesy it is cruel, unless we are to forget that a woman is still a woman when a nurse, yet are we still to compel them to stand for hours, as no H.-P. or H.-S. ever thinks of doing, though we know the effort and consequences are felt by them much more than by us?

Apologising for my length of speech in this,—I am, yours faithfully, ex-H.-S.

A Freemason's Lodge at Guy's.

Dear Sir,—A few weeks ago a letter appeared in the Gazette suggesting the formation of a "Guy's Hospital Masonic Lodge," and in the last copy Bro. J. H. Gibson *again drew attention to the matter. I feel sure this* would be warmly taken up, and the Lodge become an established fact, if some member of the Fraternity, who is well known to past and present Guy's men, would take the initiative. The greater number of medical men are Freemasons, and in this, the south-eastern metropolitan district, there are several Guy's men who belong to the craft, and would probably gladly join and help to form a "Guy's Lodge."

The first step to take is to get a list of those willing to become "Founders" of the proposed Lodge, then to obtain a list of those who may not care to become founders, but who would be willing to sign the petition to Grand Lodge, and become joining members if the petition was granted.

The difficulty is mainly to find out the names of Guy's men who are Masons; that difficulty overcome, each Brother should be written to, to ascertain his willingness to join in the movement of establishing a Lodge confined to past and present Guy's men.

Now, I think the initial step should be through the Hospital Gazette, and I would suggest, as there must be a beginning, that Guy's Masonic Brethren willing to join in this movement should communicate with me, stating whether willing to become founders or joining members (and giving the names of Guy's Masons known to them in their respective districts, country or town); from these names a first committee might be formed and a secretary appointed—the latter a medical and Masonic brother within touch and well known to Guy's men.

The committee would determine the founders' donation, the joining fees, the initiation into Masonry fees, the place of meeting, the annual subscription to town members, and to country members living beyond a certain radius, etc.

The M. W. the Grand Master, H.R.H. The Prince of Wales, who has always taken a deep and kindly interest in Guy's Hospital, would probably, if properly approached, take a special interest in the establishment of a Guy's Masonic Lodge, and might even be induced to become its first Worshipful Master.

The advantages of a Guy's Lodge are obvious, brethren whether from the country or from town, would meet at lodge and keep in touch of one another, and of their hospital in a true social and fraternal way and thus not lose sight of old friends; whilst the house-physicians, house-surgeons, and senior students who might through the Guy's mother Lodge become initiated into Freemasonry, would find friends willing to extend a helping hand to them wherever they settled into medical practice whether at home or abroad, for all Masons are Brethren in the true sense of the word.

St. Bartholomew's has a flourishing lodge, and St. Mary's, with its "Sancta Maria" Lodge, has a distinguished list of members, gathered from all parts of England, and why should not Guy's equal and even excel these?—I am, dear Sir, faithfully yours

F. SYDNEY SMYTH,
P.M. 1982, P.Z. 1339, P.P. Dep. G.D.C. (Surrey).
21, Adelaide Road, Brockley, S.E.

Sir,—There must be so many old Guy's men who are also Masons that, if any real desire existed for a new lodge, there could be no need to join with any other school, even though it be one bound to us with such old

ties as St. Thomas's. Cannot you, Sir, invite any who are willing to join with Mr. Gibson to send you their names, not for publication, but to form a nucleus for a committee to further an object which can only be for the advantage of both the old school and the older craft?—I am, Sir, yours, etc., "30°."

Dear Sir,—In the Gazette of March 5th I see that there is a letter written by an old Guy's man on the subject of founding a Freemason's Lodge at Guy's. It has often been a source of wonder to me why Guy's of all hospitals should not have a lodge attached to it. I have always understood that there is a great bond of fellowship between Guy's men, and that there is a brotherhood amongst them that is not found in, certainly not equalled by, any other set of men; perhaps this has in the past done duty for a lodge. Be that as it may, there would be no harm in having an additional bond of union between us.

There are, however, one or two points that I should like to mention on the other side. First, how would the lodge gain new members? Of course, it would be from the senior men, and in that case when they left the hospital would they continue to be members, as, when dispersed and wandering they would not in all probability be able to come to the meetings unless they lived near town?

Second; no doubt many of the staff would become members, and in the case of the senior men going in for appointments, who should be members of the lodge, would not the fact that they are personally brought more into contact with those of the staff tend to a slight extent to favour their application to the detriment of their opponents?

Third; Masonry is a luxury, and I think that until men have earned their own living that it should not be almost compulsory for their fathers to provide the necessary funds which would be required so as to enable them to do the proper thing.

However, all these points could be very easily settled, and I have no doubt that by judicious care, a Freemason's Lodge at Guy's would not be merely a machine for turning out Masons, but be what it ought, viz., a lasting bond that would enable us to meet and renew old-time friendship, that in the majority of cases are broken by time and circumstances over which we have no control.

I hope that some definite steps will soon be taken and a meeting of Guy's Masons called at any early date. I would suggest that any Guy's Masons who would be willing to further the scheme should write either to J. H. Gibson or to me, a meeting could then be arranged and the preliminaries discussed.

In answer to the note in "Passim," I am afraid the "detailed account" asked for cannot be given, as that would entirely depend on the resolutions passed at the meeting.—Yours faithfully,

THOS. HALLIWELL.

115, Brockley Rise,
Forest Hill, S.E.
15th March, 1898.

The Physical Society.

Pathological Meeting, March 5th, 1898. Mr. Ormond in the chair. Present, 20 members. The following cases were shown:—

Mr. Howard.—Separation of the upper epiphysis of the right femur of a boy aged 14 (intracapsular fracture).

Mr. Turner.—Three cases of favus of the scalp from the same family. They were all very chronic—one of several years' duration.

Mr. Batchelor.—Median cyst of neck, probably bursal. Excision of larynx for epithelioma.

Mr. Richmond.—Leucocythæmia, enormously enlarged spleen, and some enlargement of liver and axillary glands.

Mr. Hills.—Myxœdema.

Mr. Ormond.—Infantile paralysis of right leg, with chronic ulceration and dermatitis. Excision of knee, three months after operation.

Mr. Ferraby.—Abdominal tumour of doubtful nature, but regarded as pancreatic cyst.

United Hospitals' Rifle Association.

The annual general meeting of the United Hospitals' Rifle Association was held in the smoking-room of St. Bartholomew's Hospital on Monday, March 7th, and the following officers were elected—Captain: C. T. Marshall, St. Thomas's. Vice-captain: H. Stanley-Turner, Guy's. Secretary: Walton R. Read, St. Bart.'s. Auditors: W. E. Brailey, Guy's; F. Carpmael, St. Thomas's.

The following were elected to represent the hospitals on the Committee of the U.H.R.A.—Hanway R. Beale, St. Thomas's; A. Pearson, Guy's: H. C. Taylor, St. Mary's; H. Brown, St. Bart.'s.

Matches are to be arranged with Oxford University, R.I.E.C., H.A.C., and the Guards.

Appointments.

Clowes, Ernest F., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed House-Physician to the Royal Hants County Hospital, Winchester.

Farnfield, W. W., M.R.C.S., L.R.C.P. Lond., has been re-appointed Resident Medical Officer to St. Mary's Children's Hospital, Plaistow, E.

Reynolds, L. G., M.R.C.S., L.R.C.P. Lond., has been appointed Surgeon to the Royal Mail SS. Company.

Wise, Harry Mortimer, M.B. Lond., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the Plumstead Sanitary District of the Woolwich Union.

Notice.—Dr. Galabin will give a Clinical Lecture on Thursday next, March 24th, at 4 p.m., in the Anatomical Theatre, "On some unusual cases of Abdominal Tumour."—Guy's Hospital, March 18th, 1898.

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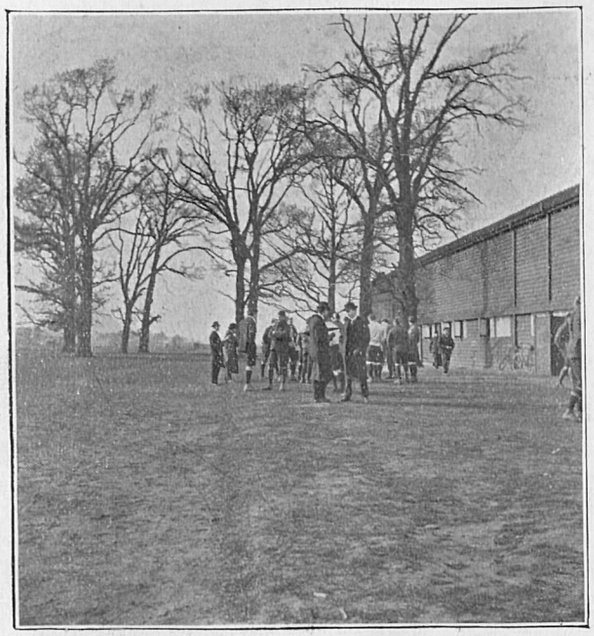
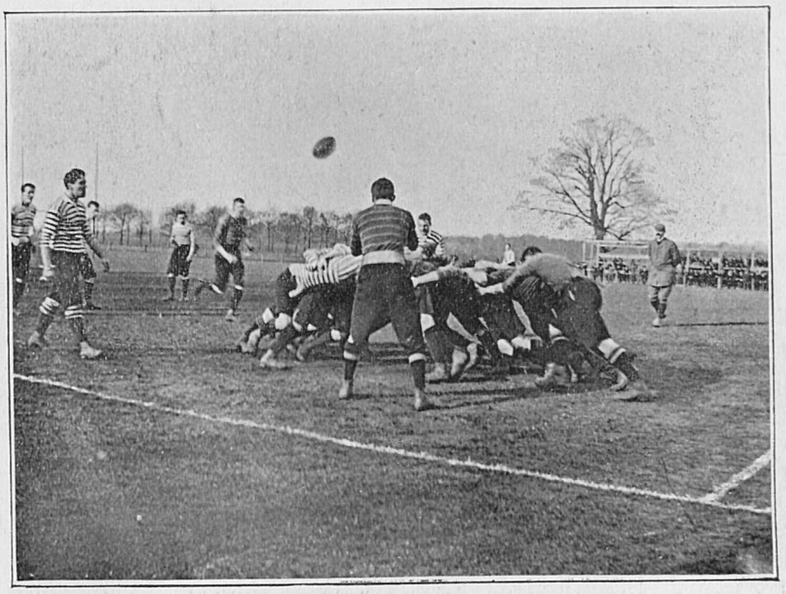


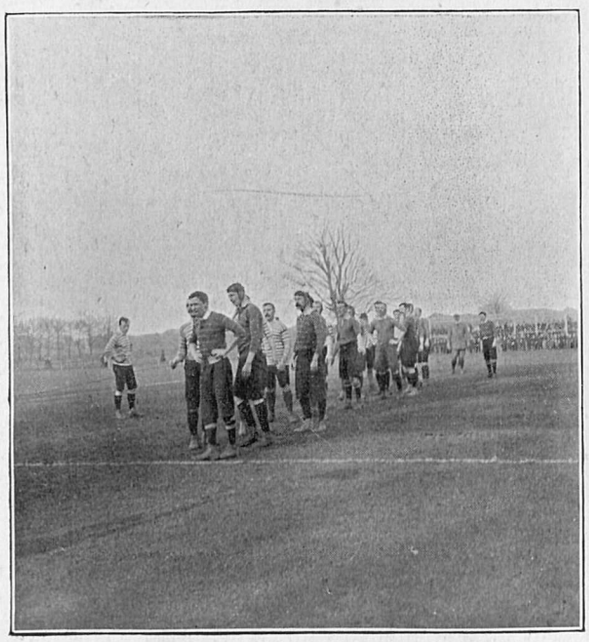
BEHIND THE SCENES BEFORE THE START.



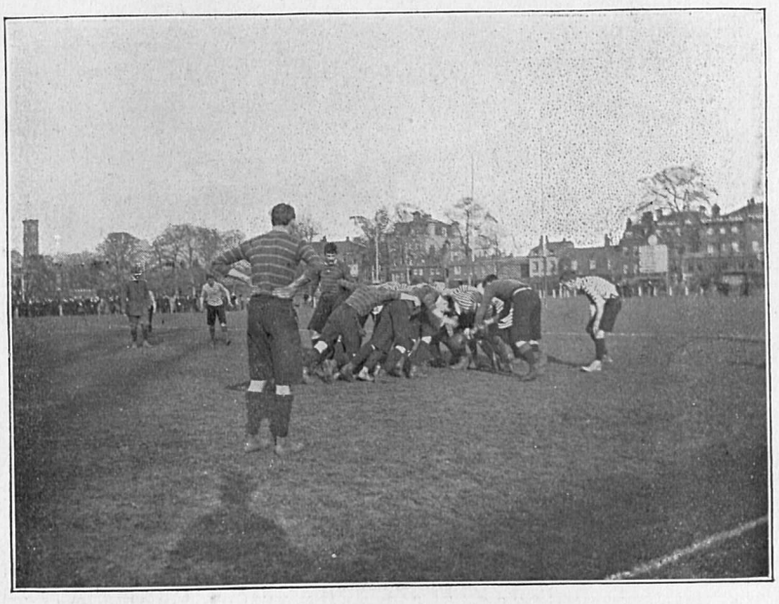
A SCRUM.

THE FOURTH TRY.

KICK OFF, after the Dropped Goal.



A LINE OUT.



A SCRUM. Second Half.

SNAP SHOTS AT THE FINAL CUP TIE.

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Passim.

After an absence of just eleven years, we have had the extreme pleasure of welcoming the Inter-Hospital Rugby Challenge Cup back to its first home. Never have we enjoyed any Cup Tie as much as last Tuesday's. Its nearest competitor was, perhaps, the famous match of 1893, when, with Thomas's on our line for practically the whole game, our team in the end suffered defeat by the small margin of eight points to five. This time, however, for the pangs of defeat have been substituted the joys of victory, and after a thoroughly well-deserved victory, without the slightest semblance of fluke, Guy's has become the holders of the Cup—the most coveted of all the Inter-Hospital trophies—until such time come that it shall be wrested from us. May that time be far distant.

While giving the forwards the full credit for the splendid win, we are bound to say that the back division has never played so well before this season. It speaks volumes for the excellent work of the halves and three-quarters when we say that throughout the whole game Hilton at back was never once called upon to tackle an opponent; and we believe we are right in saying that on only one occasion did the ball pass through more than two of our opponents' hands, so sound and practical were the defensive tactics displayed by our back division. In fact, the same applies pretty well to both sides after the first twenty minutes of the game. It was during that first period that the Thomas's tackling broke down, and enabled us to cross their line four times.

The Guy's pack performed splendidly. Both in the scrum and in the open they were clearly superior to their opponents. Mullins was an indefatigable leader, and with Gibson, Featherstone and Traill, was perhaps most often in the centre of the scrum. But no shirking whatever took place, all the forwards working splendidly all through. In the open, T. P. Thomas was streets ahead of anyone else, and Ayre Smith, Cutler and Manson were his nearest rivals. The last-named was also excellent at the line out. All the critics are agreed that the fine play of the two Wetherells at half assisted not a little towards the result. At the very commencement they were inclined to hold the ball too long, but this fault they soon eradicated. Coming to the three-quarters, the tackling all round was excellent; Sime's kicking was a great improvement on his usual form; Wilkes surprised everyone by his excellent play, taking his passes well, and being very quick on his opponent; Jackson did not have a great deal to do, but did all he had without a mistake; Hilton's strong point, his tackling, was not, as before-mentioned, requisitioned.

One short word in praise of the refereeing. Mr. Harnett is an ideal knight of the whistle, and when we say that he was in quite his best form, we say as much as we possibly can. All through the game there were none of those aggravating and often unnecessary stoppages of the game, which are nowadays so often caused by over-zealous, though, no doubt well-meaning referees.

After the magnificent way in which the Fifteen upheld the reputation of Guy's in the Hospital Cup, we feel it almost sacrilegious to suggest any alteration in the existing methods of raising teams. But when the matter is investigated carefully, it will appear that the following suggestion tends only to give the Second and Third Fifteens the advantage which the First enjoys.

As the matter stands at present, the First and Second Teams have each their independent committees, while the Third Team relies upon its one permanent official—the captain—to nominate players. We thus have potentially three quite separate committees to choose three graduated teams to represent the Hospital. The disadvantages of this system are obvious on the face of it, and the Second and Third Teams, chiefly the latter, have suffered in consequence. Now, if to the existing First Team Committee, which, we take it, is quite representative of the premier Fifteen, four members were added, two of whom should represent the Second and two the Third Fifteen; and if at each sitting of the mixed committee all three Fifteens were chosen, each team with suitable reserves, which in the case of the First and Second Teams should be included in the Second and Third Teams respectively, not only would the best possible teams be chosen, but there would be no risk of demoralising the Third Fifteen by scratchings in the higher teams.

Thus primarily, the Third Team would be benefited, but in the end the whole Club would reap the advantage, for were it made certain that the lowest team would be full—properly full, that is, without deadheads—each Saturday, there would be a strong inducement for junior men of promise to play for this team instead of playing elsewhere. Add to this that the executive would be thoroughly in touch with all the likely men from week to week, and it must appear that this method commands great advantages.

It seems quite in accordance with the best views of the matter, that the Second team should be encouraged and helped to keep a full eleven, and this can only be obtained by a rigorous endeavour on the part of the First Eleven to prevent Saturday morning scratchings in its own ranks. The occasion rarely arises when it is necessary for a man who has previously promised to play, to remove his name from the list a few hours before the match; and if on these occasions a full *written* explanation were required by the Committee, even these "necessary" occasions would to a large extent vanish. The result would be beneficial to both teams, and would relieve the Secretary of much worry and anxiety.

Another point which has been fruitful of discussion is the propriety of publishing in these columns unfavourable criticisms. To the unbiassed mind, the matter admits of no discussion, because any attempt to restrict such criticisms, involves our sacred liberty, the Freedom of the Press. Yet it has actually been stated that harm has been done, individually and collectively, by adverse criticisms. How this can be it is difficult to conceive. When a man is fortunate enough to get into the first team of his Hospital, he takes on his shoulders the responsibility of maintaining the prestige of not only his team, but also of his Hospital. His subsequent actions are therefore open to legiti-

mate and impartial criticism by his fellows, because he is in a sense acting as their representative. To the Gazette also, as the organ of the Hospital, belongs the part of voicing these criticisms in order that every man may form an opinion of the fitness of the particular representative. So long, then, as the critiques are impartial and temperate, be they favourable or adverse, their publication is perfectly justified, and, indeed, necessary; any attempt at muzzling the mouths of critics because their words are not favourable is vicious in the extreme.

The Final of the Surrey Rugby Cup is down for decision to-day on the ground of the Battersea F.C. at Wandsworth. The competing teams will be our Second XV. and the Sutton F.C., and though, judging from recent form, the latter team probably will win, still the Second should make a close thing of it.

The Captain of the Rugby team has received so many congratulatory telegrams and letters that he finds it quite impossible to answer them individually. So he asked us to tell it out in these columns, that he thanks the senders most heartily, in the name of the team, for their kind sentiments. Amongst others letters have been received from the following old time shining lights in the Hospital teams:—F. J. Nisbet, W. J. Scott, Norman Lavers, W. F. Cruikshank, and what was much appreciated, a wire from the London Hospital R.F.C.

The Annual General Meeting of the Students' Club will be held on Monday, March 28th, at four p.m., in the Anatomical Theatre, with the President, Dr. Pye-Smith, in the chair. The notices posted about the Hospital intimate that the business to be got through is simply the election of officers for the year, but for our part we should like to hear something definite about the new catering arrangements, and what alterations, if any, are to be made in the present system. Another question well worthy of consideration is that of smoking in the Club rooms. Bye-law 9 forbids smoking in the library and in the dining hall, until after 6.45 p.m. There seems to be a universal opinion that this rule requires either strengthening or modification. The condition of the weekly periodicals in the smoking room would form another useful theme. Can the Committee bring forward any man who has ever been fined the proverbial half-a-crown and who has *paid the fine?* Such a specimen would be well worth a place in the museum.

Talking of freaks, on Wednesday morning, at twelve o'clock midday, there was actually discovered in the front surgery a Guy's man who had not heard of the result of the Cup Tie. We will not disclose this man's name, as the rush to see such a phenomenon might result in his damage. Now then, Barnum and Bailey, what offers?

Our non-sporting readers (if any) must really excuse the great preponderance of football matter in these pages, but it is not often that such an opportunity presents itself, so we feel we must make the best of it.

All the friends of H. W. Bruce, who, it will be remembered, went out to India immediately after the October M.B., to take up a Plague Duty post at Bombay, will be sorry to hear that he has recently himself passed through a pretty severe attack of the epidemic. However, he is now quite convalescent, and hopes to be back in England by the end of next month.

The third Annual Dinner of the Officers and Servants of the Hospital will take place at the Bridge House Hotel next Monday, March 21st, at 7 p.m.

We would again remind all of the Ladies' Night of the Debating Society on March 26th. Owing to the unfortunate and regretted illness of J. M. Brydone, F. E. Fremantle will take his place as opener of the debate, and will propose "That the degree of liberty which women enjoy in England at the present day is the utmost either requisite or expedient." W. R. Cazenove will oppose.

From the Gazette's Special Pathologist.

NOTICES.

A. T. F., Ramsgate.—The tumour is a spheroidal-celled carcinoma of the breast. There is evidence of rapid growth, and caseation has commenced in many of the alveoli.

W. E. R., Brenchley.—Both organs show advanced post-mortem decomposition, but there is no microscopical evidence of either recent or old inflammatory changes.

T. R. A., Sherborne.—No tubercle bacilli could be found in the sputum, which is unusually free from cellular elements, though crowded with bacteria of all kinds.

T. H., Garstang.—The fatty and calcareous changes in this placenta are not more than are frequently seen in otherwise healthy organs. There is nothing in the structure of the placenta to explain the still-birth.

E. R. M., Hastings No. 2.—Tubercle bacilli are present in the sputum in small numbers.

PATHOLOGIST.

Exophthalmic Goitre.

A paper read before the Physical Society on Feb. 5th, by Mr. Albert H. B. Kirkman.

Mr. President and Gentlemen,—It was my original intention when asked to read a paper before this Society, to touch generally upon all the diseases associated with pathological conditions of the Thyroid gland, but on going over the immense amount of literature which has been written upon so inexhaustible a subject I came to the conclusion that it would be better to dwell more fully upon one disease than to give you a general spattering of many. Therefore I have chosen Exophthalmic Goître for my subject:—

For the first description of the condition we are indebted to an Italian of the name of Flagani who first described it in 1802 A.D. In 1825, Hillier Perry's works were published containing a more careful description which had been written in 1796.

Grave's description was a much fuller one and did not appear until 1835 in the London Medical and Surgical Journal, Vol. VII., No. 173 Renshaw's series.

Basedow's description was in 1840.

The etiology of the disease is very obscure. In the great majority of cases there is a definite history of fright, grief, or other emotional disturbance. In more than five-eighths of the cases, the reports of which I have been through, there has been some such cause to which the origin of the disease has been attributed by the patient and her friends. The following are a few cases in point: (1) A woman, æt. 26, was frightened in the night by burglars; within a few days, palpitation of the heart and exophthalmos were manifest, and in two or three months all the cardinal symptoms of the disease were well marked; (2) A man, æt. 35, stated that the exophthalmos and palpitation commenced from the day on which a pail of water was thrown over him; (3) A young girl attributed the onset of symptoms to the removal of her tonsils.

Neurotic and hysterical girls and the children of neurotic parents are especially liable to Graves' disease. Anæmia often seems to precede the symptoms, but in a large number of cases the anæmia has only appeared with the commencement of other signs of Exophthalmic Goître. Heredity has been noticed on several occasions. A neurotic woman recorded by Æsterreicher had ten children, eight of whom suffered from Exophthalmic Goître, and one of the latter had three children similarly affected. Dr. Hale White mentions a case of three sisters having the disease; Krunthall, one of a woman, æt. 45, who had had symptoms for two years having a daughter, æt. 12, who developed the disease. Exophthalmic Goître occurs much more frequently in women than in men; the exact proportion of cases is estimated differently by different authors. Of fifty cases collected by Withuisen, eight occurred in males. Buschan collected 980 cases of whom 175 were males, or in the proportion of 9 to 2. In 100 cases observed by Drs. Ord and Mackenzie, only 5 were in men, and this last corresponds most likely to the relative proportion as existing in England. It occurs most frequently between the ages of 15 and 40, but a good many cases have been reported which have come on and apparently been associated with the menopause.

Influenza is said to have been a starting point in many cases, and one writer lays great stress upon the relation of the disease to nasal polypi and diseases of the nasal mucous membrane. Acute rheumatism has often been found to precede Graves' Disease, and there is a patient now in Mary Ward, under Dr. Pye Smith, who had rheumatic fever two years ago.

Four cardinal symptoms of Graves' Disease are generally described, viz.: Palpitation of the heart, Exophthalmos, Enlargement of the Thyroid gland, and Tremor; but I think to these we shall be justified in adding two more, viz.: Diarrhœa and (in women) Disorders of menstruation.

Let us deal with each of these symptoms separately.

Palpitation of the heart is generally the first symptom noticed by the patient. It may come on immediately after some fright or trouble, or may be attributed to no definite cause and make its appearance more gradually; it is the most distressing of the earlier symptoms to the patient; the heart beats irregularly and rapidly and can be seen thumping violently against the chest wall, it may attain to 180 beats per minute. The attacks of palpitation, as most of the symptoms of this extraordinary malady, are paroxysmal and may last from a few minutes to 24 hours. With the palpitation, the carotids can be seen and felt beating violently. In proportion to the cardiac disturbance the patient suffers from shortness of breath, and is incapable of the slightest exertion. A systolic bruit may often be heard over the mitral and pulmonary areas, but this varies much in its character and may at times quite disappear.

Exophthalmos, or protrusion of the eyeballs, is perhaps the next most constant symptom; it generally comes on later than the palpitation, but may make its appearance about the same time, or even before, the cardiac symptoms. Mr. Higgins tells me that patients will come to him complaining of prominence of the eyes before any of the other symptoms of Graves disease become manifest; but these cases are, without doubt, the exception. Exophthalmos may be scarcely noticeable or may be so severe that the lids are quite incapable of covering the globe, and corneal ulcers and sloughing of the eyeball may result; severe ocular lesions are rare, but deaths have on several occasions resulted from them. I have found records of 36 cases so severe that partial or complete tarsorraphy was done to relieve the symptoms and endeavour to save the eyes, but the majority of them have not done well. Mr. Jessop (B. M. J. 95, Vol. 2, p. 1,296) mentions three exceptionally severe cases. Case I—Extreme Proptosis, no enlarged Thyroid. He performed partial tarsorraphy on both eyes; four days later the patient developed swelling of right conjunctiva, followed shortly by cresentic ulcer of cornea and chemosis of left eye. Both eyes then ulcerated, and the corneæ necrosed

notwithstanding active treatment. Present condition, staphyloma of both corneæ and extreme swelling of the conjunctivæ. Case II—Woman, æt. 35. Extreme proptosis of both eyes, both cornæ sloughed. He excised right eye; patient became insane and died. Case III—Woman, æt. 24. Extreme proptosis, right eye sloughed and was excised; left eye was later subject to recurrent attacks of superficial ulceration. The results of seven recorded cases in males in which there were severe ocular lesions were very bad; four of them died. Of eighteen females, two died and ten lost both eyes. Edward Nettleship mentioned five cases of Exophthalmic Goître with damage to corneæ; his impression was in favour of lid suture, but it should be quite firm, the cases where it was imperfectly done were followed with bad results.

Trousseau mentions a case of a young woman in which the eye-balls were pushed forward so much that one of them actually came out of the orbit and had to be put back with the fingers. When there is considerable proptosis the anterior insertions of the recti can be easily seen and the spot (says Trousseau) is remarkable for its great vascularity.

As a rule there is no disturbance of vision, although in some cases the patient may be either long or short sighted. Some patients complain of weakness of sight, and there may, in very exceptional cases, be diplopia.

With the ophthalmoscope often no changes can be seen, but as a rule there is some injection of the retinal vessels, and Otto Becker states that in the majority of cases spontaneous pulsation may be seen in the retinal arteries, but Swanzy has only seen it occasionally. Some authors have described a deposit of pigment upon the retina.

For the purposes of differential diagnosis, peculiarities of the exophthalmos of Graves' Disease are now generally acknowledged, and the following names have been given to the characteristic signs.

Græfe's sign—This is the most constant, but is only seen in a certain proportion (about 80 per cent.) of cases. It consists of an impairment of the consensual movement of the upper lid in association with the eyeball. This symptom may occasionally be present prior to any exophthamos, and hence it is of diagnostic value. Unilateral Græfe's sign may occur. It is not absolutely pathognomic, and is sometimes present in other diseases, and even sometimes in health.

Dalrymple's sign consists of an abnormal widening of the palpebral fissure, due to the retraction of the upper eyelid. Probably each of these signs is due to the one cause suggested by Sharkey, namely, loss of power in the Orbicularis rather than to over action of the Levator.

Stellwag's sign is fairly constant. It is an incompleteness or diminished frequency of the act of involuntary nictitation; this act sometimes occurs only once a minute, or several nictitations take place and then there is a lengthened pause. The action is each time incomplete, the margins of the lids now being brought together.

The mechanical cause of exophthalmos has been much disputed by different writers, but I think it is now generally admitted by most that it is due in a large extent to hyperæmia of the retro-bulbar orbital tissues, as is evidenced by the fact that steady pressure on the globe diminishes the protrusion; but we cannot overlook the fact that there is in the large majority of cases an excess of orbital fat, as is actually found post mortem, but this is most likely secondary to the hyperæmia. Graves described a venous stasis of the retro-orbital tissue, causing it to become turgid like erectile tissue. If there is not actual excess of orbital fat there is generally excess in proportion to that found elsewhere in the body, as it must be remembered that most of the patients are considerably emaciated at death. I will here draw attention to an error contained in many of the text books; they state that the eyes do *not* protrude after death; this is distinctly at variance with facts in a great many cases. In only five cases which died from Exophthalmic Goître mentioned in our P.-M. Reports between 1870 and 1895 is any note made in reference to the condition of the eyes after death, but in three of these the eyes are stated to be "still prominent," in one, "markedly prominent," and in the fifth, "not unusually prominent." Trousseau mentions several cases in which the eyes were pushed forward after death, from an excess of fat in the orbit, and many other cases of a similar nature are mentioned by other writers.

By some, the exophthalmos is attributed to the spasmodic action of the muscle of Müller, a layer of unstriped muscular fibres which have an anterior attachment to the posterior border of the tarsus and extend backwards over the cul-de-sac of the conjunctiva, some of which reach the ocular portion of that membrane, others in the upper lid form an attachment to the under surface of the levator palpebræ tendon. The muscle of Müller is supplied by the sympathetic. The action of this muscle is involuntary, it reopens the palpebral fissure at each involuntary nictitation. It will be seen that all four signs may be attributed to spasm of the muscle of Müller. The argument against this being the case is the fact that Filchne observed that after dividing the restiform bodies in rabbits, exophthalmos occurred even after the sympathetic was cut.

Others (including Maude of Westerham) hold with the view that all the ocular symptoms are due to pariesis of the temporal division of the temporo-facial nerve, which supplies the occipito-frontalis, the orbicularis palpelbrarum and corrugator supercilii muscles.

Swelling of the thyroid gland may appear quite early in the disease, being observed before any of the other symptoms are noticed, although it is generally observed rather late, but it must be remembered that enlargement may exist without being evidenced externally. It may often first arouse attention from the collar becoming too tight, more especially in women. Apart from this, the swelling of the neck is not a source of much discomfort to the patient unless it becomes very large or causes pressure upon the trachea. Throbbing may be complained of in some cases. Often a distinct thrill can be

felt by the hand placed over the gland; marked pulsation of the swelling may also be noticed, and more than one case is on record in which the pulsation was mistaken for an aneurism even by skilled observers. Greenfield said he had never felt pulsation of the thyroid gland in exophthalmic goîtres. A systolic bruit can generally be heard over the gland.

The swelling of the thyroid is subject to great variation in size, there being definite paroxysms of swelling associated with other aggravated symptoms, namely, excessive protrusion of the eyes, palpitation, diarrhœa, etc. These paroxysms are often the result of excitement or overwork.

Tremor of the extremities and of the body generally is to be found in the majority of cases; it consists of fine vibratory movements at the rate of about eight or ten per second.

It may only be discovered by careful examination and by getting the patient to hold out her hands or legs for a short time. Dr. Hector Mackenzie lays great stress on the tremor as being one of the cardinal symptoms of the disease, and he believes that it can be found in almost every case.

Tremor is most marked in the flexors of the arms, the interossei escaping. Maude says that the tremor of exophthamic goître differs from that from other causes by its being almost universal, and that its character is much more uniform than that of hysterical tremor, for which it is most likely to be mistaken. Attacks of trembling quite apart from the tremor may be often observed when the patient becomes excited, and this may be accompanied by interference with speech like that which is seen in disseminated sclerosis.

Diarrhœa is almost invariably observed during some period of the disease; the attacks may be continual or intermittent. It is generally aggravated by any cause of excitement, and under these conditions may become a very troublesome symptom. Persistence of diarrhœa is of very bad augury, and it is almost always present in a person dying from the disease, and is often accompanied by the most obstinate vomiting.

Disorders of menstruation in women are almost always present, in fact, I have only been able to find one recorded case in which it is mentioned that there was no menstrual disturbance. Although the tendency is in the direction of amenorrhœa, it is the extreme irregularity of the periods which is most characteristic of the disease. A woman whom I have been watching for about eighteen months shows this point excellently. During seven weeks she had three periods lasting about three or four days each, she then missed seven months, had two periods in six weeks, and then went for three months before another appeared. The menstrual disorders seem to go concurrently with the aggravation of the other symptoms, amenorrhœa being present when the other symptoms are well marked.

Pigmentation of the skin is present in the majority of cases, and is of extreme interest. It generally comes on after the development of other symptoms, but David Drummond described a case in which pigmentation of the face, neck, etc., was well marked some months before the appearance of other symptoms. Dr. Carew found an abnormal increase in pigment in 70 per cent. of all cases seen by him. The skin chiefly affected is that of the face, around eyes, neck, axillæ, dorsal aspect of the hands and forearms, and parts exposed to pressure, as the thigh from the pressure of a garter or at the waist, the area around the nipple in women is also a common seat of pigmentation. The parts affected are dark and muddy looking; it may be limited to small areas or may be almost universal. In few, if in any, of the cases is there to be seen the minute deeply-colored patches which are characteristics af Addison's disease. In many cases the cutaneous affection takes the form of leucodermia, as shown by patches of white skin surrounded by margins of liver colored-pigment—this is more often seen on the back of the wrists. Occasionally there is alopecia, and in a few recorded cases the patients have become quite bald and lost the hair from the axillæ and pubes.

The majority of patients with exophthalmic goître are extremely hysterical, attacks of hysteria are generally associated with aggravation of the symptoms, including palpitation of the heart, protrusion of the eyes, and some swelling of the thyroid as is evidenced by a feeling of fulness in the neck. In most cases, apart from a so called hysteria there is a singular nervous sensibility which is an early and constant symptom in the disease. Maude describes a definite form of mental change (which was absent in only 1 out of 20 cases observed by him) characterised by extreme motor restlessness, insomnia and occasional sensorial illusions of sight and hearing. He found that the more purely psychical changes were irritability, incapacity for mental exertion, loss of memory and untruthfulness. Sir Russell Reynolds has described a condition quite common as "Chorea of Ideas," an expression which sufficiently conveys its own meaning. Another common condition is a morbid sense of duty akin to religious melancholia. Insanity resulting from exophthalmic goître is rare, but may assume the form of melancholia or mania, either of which are of extremely bad augury. Other symptoms of the disease are:—a sudden giving way of the knees when standing; this is also found in patients with myxædema, and is known as Buzzard's or Charcot's sign. Night sweats are common. Loss of weight is almost always seen and may be very extreme in acute cases.

Splenic pulsation. This was detected in four out of eight cases examined by Gerhardt; the anterior of the spleen was seen to pulsate strongly when the patient was lying on her back. Anemia is generally present, but many cases have been recorded in which the blood has been found perfectly normal.

Incomplete forms of Graves' disease are common and have been the subject of much literature, but there is very little in reality of interest to be said about them. One or more of the cardinal symptoms may be entirely absent, the only one which seems to persist in all cases

being palpitation of the heart, but although the thyroid gland may not present any external evidence of enlargement, there are no glands I believe which have been carefully examined after death, of late years, that have not shown peculiar structural changes.

The duration of Exophthalmic Goître is very variable. So much so that they are divided by many authors into the "acute" and the "chronic" forms, but this appears to be quite unnecessary, as it is impossible to draw a hard and fast line between the two. Cases have been reported in which patients have had all the symptoms for 25 years or more, they becoming aggravated at extremely irregular intervals, whilst other cases have proved fatal six weeks from the onset.

Exophthalmic Goître in children is very rare, there being only about thirty cases on record in which the symptoms have been well marked in children under the age of ten years. Kronthal (Berl. Klin. Woch. July 3/93) says that mental symptoms are generally especially well marked, the children having impulsive ideas. The absence of von Graef's sign and also of tremor is common. The prognosis is not as as rule unfavourable. Heredity plays a not inconsiderable part in the causation of the disease in children.

The effects of Graves' Disease upon pregnancy and parturition are extremely interesting, more especially as so many opposing results are published by different writers.

There is no doubt that pregnancy may be the starting point of the disease as in the following case recorded by Jeffroy (Union Med. Mag. 1892). A girl was married at nineteen; at her first pregnancy a goître appeared, during the second it increased in size, in the course of the third, palpitation set in, and during the fourth all the symptoms of Exophthalmic Goître were observed.

Dr. Haberlin mentions a case in which a woman who had had six previous pregnancies developed all the symptoms of Graves' disease when she conceived for the seventh time. The child was born prematurely at eight months, dead and emaciated. Two other cases of premature birth I have found recorded.

Many writers have recorded the beneficial effects of pregnancy on patients with Graves' disease. Charcot prescribed pregnancy as a cure for the disease, and Walter Foster, in the *British Medical Journal*, 1890, stated that the worst case he had ever seen was cured by pregnancy. Trosseau mentions a case of a woman who had had two children; she enjoyed very good health during pregnancy, and states that her breathing improved remarkably during that condition, but became much worse a few days after delivery. Signior and other authors mention cases in which the symptoms were much ameliorated after delivery.

I have fortunately had the opportunity of watching the effects of pregnancy and parturition on two women. Both cases went to full time, were delivered naturally, and had comparatively easy, but rather prolonged labours; one had twins. Pregnancy itself appeared not to have much influence on their condition, except that one woman had a lengthy attack of palpitation when she was about three months "gone," and the other had rather troublesome sickness during the second and third months. After delivery the milk did not "come in" at all in one case, and in the other it only appeared in such small quantities that the child had to be weaned at the end of a fortnight.

In the case of the woman who had twins, vaginal discharge persisted for more than two months after delivery. The goître became much larger, and when I saw her a few days ago (it is now about twelve weeks since delivery) it was a good deal larger than it was a month previous to parturition. The eyes were not quite so prominent; she had become extremely thin and anæmic during the past two months, and expressed herself unfit for the least exertion. Comparing her condition now to what it was twelve months ago, there is no doubt but that she is considerably worse. The other woman I have now lost sight of, but she told me a month after delivery she was much thinner than before her marriage, and she considered that pregnancy had had injurious effects upon her.

(To be continued.)

A Portuguese Bull-fight.

By Gerald Sichel, F.R.C.S., R.N.

A Portuguese Bull-fight is more humane than a Spanish one, inasmuch as the bull's horns are covered with leather, and they themselves are never killed. However, even this is cruel enough, and after seeing one at Lisbon I have never had the courage to patronise the Spanish ones; indeed, one is enough for a lifetime in my opinion.

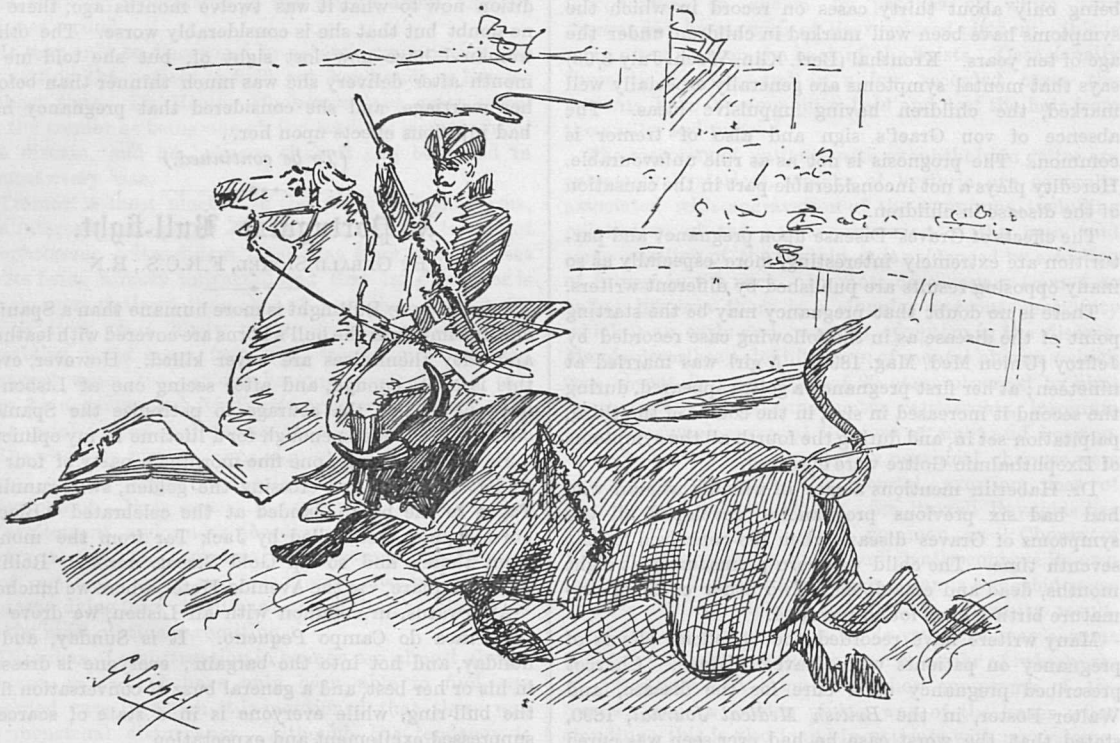
Be that as it may, one fine morning a party of four of us left the ship, and crossing the golden, swift-running Tagus to the beach, landed at the celebrated "Blackhorse Square," so called by Jack Tar from the monument there; and so up Gold Street, across "Rolling Motion Square," to the Avenida Hotel, where we lunched.

Afterwards, in common with all Lisbon, we drove to the Praca do Campo Pequeno. It is Sunday, and a holiday, and hot into the bargain; everyone is dressed in his or her best, and a general buzz of conversation fills the bull-ring, while everyone is in a state of scarcely suppressed excitement and expectation.

It is announced that "Ten Touros Puros" will this day provide entertainment, not only for men, but also —God save the mark!—for high-born ladies and little children; and so, having plenty of time, the first thing we do is to visit the bulls. Huge, black, magnificent animals they are. For some time before they are turned into the arena they are penned up tight in a little chamber into which they are driven by men, on platforms above, who are armed with long hand-spikes; once in, a door is dropped down, and then the poor brutes are goaded into a state of fury by prods and digs from above, the men being, of course, perfectly safe. But the time of commencement is approaching, and so we go to our seats in the "sombra" side of the arena.

Royalty is expected to-day, so everyone is kept in a high state of tension, until at last the King—in uniform and attended by one or two aides-de-camp—enters his box; on his appearance everyone rises and the band strikes up. The big doors swing open and a gay cavalcade of toreadors, horsemen and mules, with jingling bells, enter the arena, and approach in procession the royal box. Two men—cavalleiros—gorgeously dressed and superbly mounted, then gave an exhibition of horsemanship.

After that the business proper of the day began by a "Farpeado"; everyone left the ring except one man mounted on a grand white horse; a small door was opened, and out rushed the bull straight as a die. It looked as if all must be over with both man and horse,



but no! the horse was quietly turned to one side, and a banderillo skilfully planted in the bull's shoulder. Then followed rush after rush by the infuriated animal, always as successfully evaded by the rider, who was a superb horseman; and time after time was a banderillo left firmly fixed in the brute's shoulder. At times, however, the "Cavalleiro" had to use all his skill and all his horse's speed to avert disaster.

The bull—a powerful animal—was a very game one, but in the end had to give up the "unequal contest"; and remained standing in the middle of the arena, bleeding, snorting, pawing the ground, and occasionally bellowing—more I think in rage than pain. Seeing that nothing more was to be got out of him, a team of brown oxen were driven in, and the bull joining them was driven out as quiet as a lamb.

The next act was a "Para os Bandarilhoiros"; this time the bull was attacked only by men on foot, and again, time after time, did a banderillo find a resting place in the animal's bleeding shoulder. I must admit that the men exhibited courage and activity in the highest degree. A rush of a huge black mass, a gaily dressed figure missed by an inch leaping the boundary, a cloud of dust and then a sullen roar, told, time without number, of terrible injury or even death itself only just missed. Several times the bull leapt the high hoarding surrounding the ring, much to the surprise of his tormentors, who usually, once over, imagined themselves safe.

At the end the spectators fairly yelled with delight, and their way of showing their pleasure is peculiar. They take off their hats and throw them into the ring at the particular favourite "Bandarilheiro," and he, smiling and bowing returns them to their owners, amidst deafening applause.

Then a fresh bull was introduced and much the same performance repeated.

After that, the most disgusting sight of all, entered two picadors on wretched blindfolded horses; this was a most pitiful sight, as, although the bull's horns were covered, the horses, poor things, just able to keep on their legs, must have received severe injuries. The picadors appeared rather to court a charge rather than

to avoid it, and always fell off at once, to be dragged away by others, leaving the wretched blindfolded beast entirely at the mercy of the infuriated bull. It was pitiful, and one felt degraded by witnessing it; rightly or wrongly I could not help feeling that I would be pleased to see one of the human performers injured instead of a half-starved, trembling, helpless animal, which had probably all its life served man only too well, and was now playing the last scene of its miserable, ill-treated existence.

The next bull was sulky, and in spite of everything would not rush. There is nothing a bull-fighter dislikes more, because if he does rush he doesn't come straight. However, this one only stood and pawed the ground, now and then taking a gentle, astonished trot after his tormentors. At length, amidst much hissing and hooting, he was trotted out.

The next round, so to speak, was another "para os bandarilheiros," but ended in a different manner. After the bull had been fairly tired, a band of quite unarmed men came into the ring, dressed in bright yellow and red. This was to me the only sporting part of the show, for the bull makes a rush at these. One man stands immediately in front of him, and as he thunders along with his head down, falls between his horns, clasping his hands tightly round the brute's neck and his legs round his head; then all the others rush at the huge beast, and he is led captive round the arena.

The first attempt failed, and one man was severely injured. He had apparently not managed to get between the horns, and was in consequence severely knocked about and trampled upon, for it was some time before they could attract the bull's attention from him.

After this came the "Intervallo," and the second part of the programme requires no description, as it was the same as the first. Indeed, I didn't wait to see it, but left thoroughly sickened. The others, however, stopped, and told me afterwards. I think one more man was hurt.

I sometimes wonder whether I am glad I have seen a bull-fight. Well, it was an experience dearly bought, for one cannot help but feel degraded by the knowledge that one has assisted in an exhibition of deliberate and wanton cruelty—an exhibition in which is seen more brutality in a few hours than it is the lot of most to witness in a lifetime.

Vacant Appointment.

Applications are invited for the post of Medical Registrar, which will become vacant on May 1st. They should be addressed to the Treasurer, Superintendent's office, on or before Monday, March 21st.

E. C. PERRY,
Superintendent.

Guy's Hospital, S.E.,
March 8th, 1898.

Viva Voce.

CLINICAL MEDICINE.

Examiner took candidate to a woman, aged 20, and said—Patient comes to you complaining of swelling of abdomen, cough and dyspnœa. I should advise you not to waste your time getting any history, but to find out by examination the condition of patient. I shall return in ten minutes.

Candidate found emphysema and bronchitis. Hypertrophy of right ventricle, but no bruit; second sound was accentuated, first sound somewhat indistinct. Liver dulness commenced at sixth rib in nipple line, and edge was felt on a level with umbilicus. Abdomen was not very much distended, gave usual signs of fluid, no marks of previous tapping. No œdema of legs. Patient stated that swelling of legs was the first thing she noticed. Spleen could not be made out.

When examiner returned, he agreed with candidate, and asked why there was now no œdema of legs.

Candidate thought it was because patient had been lying in bed lately. Candidate was then taken to a girl, aged 12, and told to examine her heart. He saw a forcible and heaving impulse outside nipple line and pulsating carotids.

He placed his hand over impulse and was then asked what he had observed. Said the heart was enlarged, but did not feel a thrill.

E. What part of heart is enlarged, and how?
C. Chiefly left ventricle hypertrophied.
E. Continue your examination.
C. Auscultated.
E. What do you hear?
C. A systolic and diastolic bruit.
E. What do you think is the cause of these?
C. Aortic regurgitation and——
E. What other signs of aortic regurgitation are there?
C. Pulsating carotids, anæmic condition of patient.
E. What else?
C. Feeling pulse.
E. Yes, what about the pulse?
C. It is a fairly good pulse.
E. Is it characteristic of aortic regurgitation?
C. No.
E. Why not?
C. Because there is also mitral regurgitation.
E. How would you treat patient?
C. Give iron.
E. Why?
C. Treat her anæmia.
E. Why treat her anæmia?
C. To improve the nutrition of her heart muscle.
E. What else would you give?
C. Tinct. Nucis Vom.
E. What else?
C. hesitated, and then examiner said, I do not want you to give anything else unless you wish to do so.

C. was then handed over to *E.'s* colleague, who took him back to first patient.

E. You say, then, this is ascites, what do you think of the fluid being so local?

C. repeated that patient said the legs swelled first, and that œdema has probably gone down because patient has been kept in bed.

E. You say there is a large liver, what do you think is the cause?

C. thought the liver too large to have been caused by backward pressure as there were no cardiac bruits, so suggested there was some cirrhosis?

E. did not agree to this, and asked how *C.* would treat patient?

C. I should treat her bronchitis.

E. What would you give?

C. Ammon. Carb.; Tinct. Scillæ.

E. Would you tap patient?

C. No.

E. Why not?

C. Because patient says the abdomen is not as large as it was.

E. When would you tap?

C. When patient showed signs of distress?

E. What would the signs be?

C. Dyspnœa, cyanosis, and tense abdomen.

E. What about the urine, would it be increased?

C. No.

E. Why not?

C. Because so much fluid has been poured out into abdomen.

E. did not like that; asked about pressure on renal vein when bell rang.

C. was then given case to treat. Girl aged 20. Chlorotic anæmia.

C. was shown a specimen in spirit in a glass jar, and asked what it was.

It was a heart with ventricle exposed, and large vegetation on the ventricular surface of mitral valve.

C. said it was a heart from a case of infective endocarditis.

E. asked why; then what are the symptoms of infective endocarditis? and the rest of the ten minutes was taken up in giving the symptoms, the area supplied by the middle cerebral artery, and talking about a case which *C.* had seen in the wards which was treated with antistreptococcic serum, with recovery, and afterwards was re-admitted to ward with mitral regurgitation.

E.'s colleague then said to *C.*: Your treatment of chlorotic anæmia is all right, tell me what complications you might get.

C. Vomiting.

E. What is characteristic of the vomiting?

C. did not know.

E. Well, what might cause it?

C. Gastric ulcer.

E. What other complications?

C. Headache, dyspnœa, phthisis.

E. What about the heart sounds?

C. You may get hæmic bruits.

E. Where will you hear them?

C. mentioned usual place.

E. If you heard a systolic bruit at apex which was traceable into axilla, and heard behind at angle of scapula, would you say that it could not be hæmic?

C. I should not like to say it could not be, but have not heard one that was thought to be.

C. was then shown some clear, bright-red urine, and asked the reason of the colour; he said it was due to blood.

E. Is it clear?

C. Yes.

E. Is blood-coloured urine generally clear?

C. No.

E. Then what do you think is the reason of this being clear?

C. It is hæmoglobinuria.

E. Yes. What is peculiar about hæmoglobinuria?

C. It is paroxysmal.

E. Does it come on at any special time?

C. did not know.

E. Does it come on at one time of the year more than another?

C. thought that as it was winter, and as there was a specimen here, it was safer to say winter.

E. Yes. What is the cause?

C. Chills; and said that the only case he had seen occurred in surgical ward after a small operation.

E. What is often peculiar about skin of patients with hæmoglobinuria?

C. did not know. He was also asked if there was not often a peculiar deposit with this urine, and of what it consisted, but he did not know.

C. was then shown a dark, clear urine, with slight deposit, and asked what the deposit was. He suggested uric acid.

E. Yes, what do you think caused it?

C. suggested gout getting better. Eating too much meat. A disease with excess of white corpuscles in blood. He was then shown a clear, pale urine, and asked what condition was it likely to be due to.

C. suggested diabetes mellitus and insipidus, chronic Bright on drinking large quantity of water.

E. What is sp. gr. of urine in diabetes insipidus?

C. 1001·5.

E. Are cases of diabetes insipidus easy to treat?

C. said that he had seen a case at out-patients which had been treated for eighteen months without improvement.

E. How would you test for sugar?

C. With Fehling's solution.

E. What is that?

C. gave its constituents.

E. How would you proceed?

C. I should boil the Fehling?

E. Why?

C. Because it sometimes reduces.

E. Why does it sometimes reduce?

C. Because it has been kept some time.

E. What change does it undergo which causes it to reduce. The bell rang. *E.* asked if *C.* had done well in his other subjects, and *C.* asked if he was all right in this; *E.* laughingly replied, I must not tell you.

(*To be continued*).

Review.

Masters of Medicine. T. Fisher Unwin. 3s. 6d. per volume.

The first three volumes of this excellent series have now appeared. The binding, type and paper must satisfy the most fastidious reader, and the price is moderate. Each volume is illustrated by a good portrait.

The life of John Hunter is dealt with by Stephen Paget, and the book is a fair-minded appreciation of the man and his achievements, written with that charm of style which seems to be hereditary in the Paget family.

The strongest impression that remains after reading the book is that of Hunter's determination and striking force of character. There must be few men who owe so little to their environment, so much to themselves. He was unassisted—or shall we, in these days of cramming, say untrammelled—by a good early education. He never seems to have read extensively, and the only person who influenced his work appreciably was his brother William. Yet it is hardly too much to say that he found surgery a mere handicraft, and left it a science based securely on pathology.

The destruction of Hunter's manuscripts by his executor, Everard Home, after Home had published as his own the cream of their contents, is refered to in terms of studied moderation, which, however, leave us in no doubt as to the author's opinion of the transaction.

Mr. D'Arcy Power's life of William Harvey has evidently been a labour of love, and the result is a delightful picture of the great physiologist and absolute English gentleman, set in a vividly sketched background of the stormy times of the Great Rebellion. How much of the charm of the book is due to Mr. D'Arcy Power's literary gift and how much to Harvey's attractive personality, is a question which does not press for solution. The combination is a very happy one, anyway.

The surgeons and the physicians appear to have disagreed occasionally in Harvey's day. Witness the following extract from the records of the Barber Surgeons, headed "Dr. Harvey's Ill Practise":—

"This day, Wm. Kellett being called here in Court for not making presentation of one of Mr. Kinnersley's maids that died in his charge, he said here in Court that Mr. Doctor Harvey being called to the patient, did upon his view of the patient say that by means of a boulster (? poultice) the tumour on the temporal muscle could be discussed, and his opinion was that there was no fracture, but the vomiting came by reason of the foulness of the stomach, and to that purpose prescribed physic by Bristol the Apothecary, so the patient died by ill practice, the fracture being neglected and the company not called to the view."

On page 99 are given certain rules which Harvey proposed and carried at St. Bartholomew's Hospital. One of these runs:—"That the Chirurgions, in all difficult cases or where inward physic may be necessary, shall consult with the Doctor at the times he sitteth once in the week, and then the Master (*i.e.*, the Surgeon) himself relate to the Doctor what he conceiveth of the cure, and what he hath done therein, and in a decent and orderly matter proceed by the Doctor's directions for the good of the poor and the credit of the house."

Besides the antiquarian gems, such as the above which are scattered through the book, there is a full account of Harvey's physiological work, with abstracts of the most important chapters. Altogether, Mr. D'Arcy Power may be heartily congratulated on a book which must have involved great, if pleasurable, labour.

In dealing with the life of Sir James Simpson, Mr. H. Laing Gordon has striven not to allow his enthusiasm to get the better of him, and has succeeded in being fair. The history of the discovery of anæsthetics is given fully, and the priority of Wells and Morton admitted; but in spite of this, the author appears to claim for Simpson m re credit than the large share which undoubtedly belongs to him. Wells discovered the anæsthetic powers of nitrous oxide, Morton of ether, and Simpson of chloroform; but it was from Morton that Simpson borrowed the idea of producing anæsthesia by the inhalation of the vapour of a volatile liquid. He then tried all the volatile liquids he could lay his hands on until he found the right one; and we admire his courage and persistance. But is it not probable that the art of anæsthetics would to-day have been nearly as advanced as it is if Simpson had never lived and chloroform had never been discovered? And is it not possible that the death-roll of the victims of anæsthesia would have been smaller? Whereas it is highly probable that but for Morton, Simpson would never have discovered chloroform. Clearly the credit of the discovery of anæsthetics belongs to our American cousins. The debt we owe to Simpson is that he was the apostle who proclaimed the new gospel, and perhaps improved on it.

There is a very good anecdote about a leading Dublin obstetrician who wrote that "the feeling in Dublin is very strong against the use of anæsthetics in midwifery, merely to avert the ordinary amount of pain which the Almighty had seen fit—and wisely, no doubt—to allot to natural labour." Simpson met this argument by a deadly parody. He said:—"The feeling in Dublin is very strong against the use of a carriage in locomotion, merely to avert the ordinary amount of fatigue which the Almighty has seen fit—and wisely, no doubt—to allot to natural walking."

But the whole book is very interesting, and we would advise our readers to spend an evening with it.

W. S. H.

Sport.

Association Football.

GUY'S 2ND XI. v. BART.'S 2ND XI.

Played at Winchmore Hill on Saturday, March 5th. One of the best games the second eleven have played this season. The score at half-time was one to nil, Ash scoring through a centre from the left wing. Guy's had nearly all the game the second half, and Ash scored another goal with a high shot in the corner of the net. Nothing more was scored although shot after shot was put in. Tipping, who had been playing a good game, had to retire just before time with an injured knee. The halves played a good game, feeding the forwards well. Witcomb played well on the outside left. Team:—

Guy's.—F. M. V. Smith (goal); F. J. Turner, J. Matthews (backs); L. O. Card, T. G. Miles, H. Tipping (half-backs); P. W. L. Camps, W. O. Roberts, J. Ash, L. J. Hughes, C. F. Witcomb (forwards).

GUY'S 2ND XI. v. KENLEY.

Played at Kenley on Saturday, March 12th, and resulted in a win for Kenley by five goals to three.

Guy's kicked off, and Kenley began to attack. After some give and take play, Witcomb beat the back and scored the 100th goal of the season. Immediately afterwards Witcomb got clean away, and scored a second goal. Kenley then had most of the play, and scored their first goal just before half-time. Kenley scored four goals in the second half. Peall obtained our third with a good shot, the score at that time being three all. We had none of our regular halves playing. Card made some good runs on the right wing, but the combination among the forwards was bad. Team:—

Guy's.—F. M. V. Smith (goal); J. Matthews, F. G. Miles (backs); J. Braithwaite, J. W. Gromitt, P. Cole (half-backs); L. O. Card, P. W. L. Camps, J. Peall, L. J. Hughes, C. F. Witcomb (forwards).

Rugby Football.

INTER-HOSPITAL CHALLENGE CUP.

Final Tie.

ST. THOMAS'S (Holders) v. GUY'S.

(From the *Sportsman*.)

After holding undisputed possession of the Hospital Rugby Cup for ten years, St. Thomas's, on Tuesday, March 15th, on the Richmond Athletic Ground, had the trophy wrested from them by the Guy's representatives, after one of the best struggles seen in this season's competition. During the twenty-four years that this affair has been in existence, teams representing the hospitals that took part in Tuesday's battle have met on many occasions. In the first season, 1874–75, Guy's won, and they repeated their successes in 1877, 1879, and 1886. St. Thomas's first obtained possession in 1878, but for a long period afterwards, indeed not until 1888, did they manage to get the Cup back. In the meantime the trophy had in turn found a resting place at St. George's, St. Bartholomew's, London, Guy's, and Middlesex. Then St. Thomas's began a remarkable series of triumphs, as, except in the season of 1890–91, when the competition, owing to frost, was left unfinished, they have remained in undisputed possession for practically a period of ten seasons.

So far as this year's struggle is concerned, St. Thomas's certainly appeared to have the better chance, for they won their earlier matches with ease, beating Westminster by four goals and three tries to nil. University College by four goals and nine tries to nil, and St. Bartholomew's by a goal and three tries to nil. Guy's, who secured a bye in the first round, only defeated St. George's by a goal and a try to a goal, but they won against Middlesex by three tries to nil. In last season's final Guy's were only beaten by St. Thomas's, after a desperate match, by one try to nil, so that after striving hard for years they are to be heartily congratulated upon Tuesday's success. The day was beautifully fine, and not one single person out of about 2,000 present could possibly have gone away with the idea that the better team had not won. In all departments of the game Guy's were infinitely the superior combination. Their forwards played with rare dash and judgment, and giving their backs any amount of work, the latter were not slow to take advantage of every opening. The winners had a good nine-tenths of the game. At the close there was a scene of indescribable enthusiasm, F. C. Wetherell, the Guy's captain, being carried shoulder high, holding aloft amid tremendous cheering the much-coveted silver trophy.

Losing the toss, Guy's started operations from the entrance end at ten minutes past three, having a brilliant sun and pretty stiffish breeze to face. A couple of wild rushes by the Guy's front division caused play to immediately settle down in Thomas's territory, but here Sime took a "speculative" kick, which was charged down by Bingham and Thorpe, who dribbled the leather back into touch by the Guy's quarter-flag. Fierce play ensued of the scrambling order until the brothers Wetherell broke away to midfield, where again the ball was kept very tight, while the collaring on either side was none too "gentlemanly." By degrees the Guy's forwards forced their way close to Thomas's twenty-five line, where F. C. Wetherell whipped the ball away quickly from the "scrum," and giving a splendid long pass to Rae, the latter raced grandly round and scored a try wide out on the left. Thomas, from a difficult angle, failed to improve. For some time afterwards Guy's kept up a hot attack, and once Wheelwright, through a bad mull, let his rivals close up. Smart work by Bateman and Harwood, however, brought relief, and then a long punt by Hanbury was misfielded by Hilton, and from a line out within four yards of the Guy's goal line Greg got possession and dropped a smart goal. On resuming, Thomas's

were kept on the defensive for a long time, and then through a penalty kick, Guy's hovered close to Thomas's line. After a hard series of packs T. P. Thomas scrambled over with a try in a most favourable position. Cutler kicked for goal, but the ball hit the upright and rebounded. In a few minutes Guy's were again attacking, and from a line out T. P. Thomas dashed over, Cutler this time converting. Then from mid-field Sime made a grand dribble, and outpacing all opponents scored in the extreme left corner. Thomas this time had a shot, but the attempt fell short. At half-time Guy's were leading by a goal and three tries to one dropped goal.

Changing ends Thomas's changed their tactics, as the forwards, by heeling out, gave their backs a chance. Quickly getting to work, they hovered close to Guy's goal line, and for some short period looked dangerous, but a mull among their third line let in Guy's, who rushed pell-mell into Thomas's quarters, T. P. Thomas, Mullins, Traill and Gibson being very prominent. They kept the ball here for a good period, but their repeated attacks were well repulsed, the St. Thomas's backs collaring splendidly. The holders once got back into Guy's ground, but their forwards were fast shirking their work, and the Guy's men, lasting much better, pushed their rivals about anyhow. Working their way close to Thomas's line, a score appeared imminent, but Guy's were penalised. Hanbury kicked out, but M. C. Wetherell made his mark, and T. P. Thomas had a shot for goal, but the wind carried the leather wide, and the holders touched down in self defence. Subsequently the Guy's front division heeled out on nearly every occasion, and as the backs had consequently plenty to do the game was pretty open and full of interest. St. Thomas's could never get very far back, and right up to the end it took them all their time to keep out their opponents. Their defence proved impregnable, and as nothing further was done, the final score stood—

GUY'S ... One goal and three tries (14 points).
ST. THOMAS'S ... One dropped goal (4 points).

Teams :—

ST. THOMAS'S.—H. D. Wheelwright (back); L. F. Hanbury, E. W. Browne, A. H. Greg, P. T. Sutcliffe (three-quarter backs); H. R. Bateman, H. M. Harwood (half-backs); H. C. Thorp, F. M. Bingham, A. E. Martin, T. H. Downes, B. G. Patch, J. F. Cunningham, G. H. Latham, H. T. D. Acland (forwards).

GUY'S.—C. T. Hilton (back); F. L. Rae, F. W. Sime, F. D. S. Jackson, J. H. Wilkes (three-quarter backs); F. C. Wetherell, M. C. Wetherell (half-backs); R. C. Mullins, F. G. Gibson, D. H. Traill, A. A. Smith, T. P. Thomas, H. A. Cutler, F. R. Featherstone, P. T. Manson (forwards).

Referee: Mr. Geo. H. Harnett (hon. sec. Kent County R.F.U.) Touch-judges: Messrs. R. J. Hodgson (hon. sec. Middlesex County R.F.U.), E. V. Gardner (L.R.U.S.R.)

WINNERS OF THE CUP.

1874–5.	Guy's.	1878–9.	Guy's.
1875–6.	St. George's.	1879–80.	St. George's.
1876–7.	Guy's.	1880–1.	St. Bart.'s.
1877–8.	St. Thomas's.	1881–2.	St. George's.
1882–3.	St. Bart.'s.	1890–1.	Compn. unfinished.
1883–4.	London.	1891–2.	St. Thomas's.
1884–5.	London.	1892–3.	St. Thomas's.
1885–6.	Guy's.	1893–4.	St. Thomas's.
1886–7.	Middlesex.	1894–5.	St. Thomas's.
1887–8.	St. Thomas's.	1895–6.	St. Thomas's.
1888–9.	St. Thomas's.	1896–7.	St Thomas's.
1889–90.	St. Thomas's.	1897–8.	Guy's.

GUY'S v. RICHMOND.

This match was decided on the Athletic Ground on Saturday, March 5th. After an interesting match, the home club proved victorious by one goal and one try to nil. The first half was very even, nothing being scored by either side. Guy's started off with a fine forward rush, and for some minutes penned their opponents in their twenty-five. Relief, however, soon came through a good punt into touch by Bullock. From the line out the Richmond forwards broke away and were within an ace of scoring. Some light scrums were fought out in Guy's territory, and a fine kick to Richmond was awarded; the kick failed and Guy's touched down. The Guy's third line now showed to some advantage, but failed to score, though Rae was twice nearly over the line. The forwards, too, were quiet equal to their rivals both in the scrummages and the loose, though the Richmond pack brought off some capital screws.

After half-time, the Richmond team improved, and their backs exhibited much better form. Hacking was the first to break through the hospital defences, and, running strongly, scored in a favourable position, the additional points being added by Reynolds. Very soon after this Bullock got away, and though well tackled by Ransford' managed to pass to Palmer,, who crossed the line. The place failed, and thus the game ended as is stated above. Team :—

GUY'S.—A. C. Ransford (back); F. W. Sime, C. T. Hilton, C. T. Pye-Smith, F. L. Rae (three-quarter backs); F. C. Wetherell, F. S. Jackson (half-backs); R. C. Mullins, F. G. Gibson, D. H. Trail, H. A. Cutler, F. R. Featherstone, P. T. Manson, A. H. Wall, H. V. Bagshawe.

GUY'S 2ND XV. v. SURBITON.

SURREY JUNIOR CUP—SEMI-FINAL.

This match was played at Surbiton, on Saturday, March 12th. Guy's won the toss and started with the wind and hill in their favour. The ball was well returned by Pye-Smith, and a series of scrums followed in their territory. However, a good kick by a Surbiton half brought much-needed relief. From a line out in our half, the ball was transferred to a centre three-quarter, who eluded Guy's defence and scored in a favourable position. However, the kick failed. This roused the Guy's forwards to go off with a fine burst, and tackling the full-back before he could get in a return, worked the ball down to the goal line. The Guy's pack pushed the opposition over the line, but it was impossible for the referee to judge whether a try had been scored, so a five

yards scrum was ordered. From this Walker received, and slipping round, scored wide out. With a fine kick the same player landed a goal. At half-time Guy's led by one goal to one try.

The second half was very even and mostly confined to the forwards, any attempt to open up the game being speedily quenched. Once Guy's were all but over after following up a free kick by Walker. However, the full-back was lucky enough to get in a speculator into touch. The game soon after terminated and so no further score was added. Guy's left the field victorious and thus qualified for the final round which is to be played at Wandsworth on Saturday, March 19th.

REMARKS.— There are several very evident faults among the forwards. In the first place, the packing was very ragged, the front rank locking much too loosely. They must be careful, however, not to overdo it and so interfere with the breaking up. Immediately the ball is away the forwards must break and get across to help the three-quarter line. Marking out of touch must be carefully watched, and the man with the ball put out of the game. The heeling out on Saturday was too slow, and above all, more often than not, came out at the side. This is of great advantage for the opposing half, but useless to our own side. It is to be hoped that the outsides will tackle hard and low. There is also room for improvement in the three-quarter passing. With some attention to above points we may hope to play a much improved game v. Sutton. Team:—

GUY'S.—F. G. Rashleigh (back); J. H. Wilkes, C. T. Pye-Smith, S. Shannon, F. J. Pierce (three-quarter backs); F. E. Walker, W. Jarvis (half-backs); H. V. Bagshawe, C. F. Watson, M. D. Wood, A. H. Wall. G. Shorland, R. C. Lawry, R. V. Trubshaw, D. P. Watson (forwards).

GUY'S v. OLD MERCHANT TAYLORS.

In this match at Richmond, Guy's were defeated by three goals (one penalty) to nil. The Old Merchant Taylors had a strong side out, and for the only occasion this season our forwards were fairly beaten. It may be that our men realized that they had a cup-tie on the following Tuesday, and accordingly did not over-exert themselves; in any case, they certainly did not play up to their usual form. The game was fairly interesting and very fast, and in the opening half the Old Merchant Taylors put on two goals, Crimp and Fletcher scoring the tries. In the second half our men played up in very determined fashion, and, had the three-quarters been less clumsy, more than one try might have fallen to their share. The backs, however, passed forward, and knocked on with annoying persistency, and we were eventually driven back to our own twenty-five. Here, from an infringement of the off-side rule, Holland placed a fine goal for the Old Merchant Taylors, and practically made the result secure. Our superior training then enabled us to attack vigorously once more, and our forwards penned their rivals, but were unable to break through the home defence. The game accordingly ended with the score:—

OLD MERCHANT TAYLORS 3 goals (13 points).
GUY'S ... ... Nil.

Ransford deserves a word of praise, for though suffering from an injured shoulder for the greater part of the game, he fielded and kicked in irreproachable fashion. We hear that he will be unable to play v. St. Thomas's in the Final Cup Tie, and heartily condole with him and ourselves.

GUY'S 2ND XV. v. KENSINGTON.

The match was played at Wood Lane on Saturday, March 5th. Guy's went down two men short, but a substitute was found on the ground. Guy's lost the toss, and started against the wind. During the first half nothing was scored by either side. On re-starting, play settled down in the Guy's territory, but a good forward rush by the Guy's men, took the ball down into the Kensington half, and one of their behinds taking a "speculator" kicked the ball straight into Wilkes' hands, who was unmarked, and rushed over. Morgan took the kick which was at a difficult angle, and converted. A little before time, Lawry got away from the line-out, and scored a try, which was unconverted. The whistle blew soon after leaving Guy's winners by one goal and one try (8 points) to nil. Team:—

GUY'S.—E. N. Jupp (back); J. H. Wilkes, T. Morgan, G. Shannon, D. P. Watson (three-quarter backs); J. T. Hicks, W. Jarvis (half-backs); R. C. Lawry, M. D. Wood G. Shorland, K. V. Trubshaw, A. W. Gater, —. Jones, C F. Watson (forwards).

Birth.

SLATER.—On March 3rd, at Osman House, Fortis Green, N., the wife of Leonard Slater, M.A., M.B., of a son.

Marriages.

FLOYD—DAVIES.—On February 16th, at St. Luke's, Chelsea, Stephen Geo. Floyd, M.D., B.S. (Lond.), second son of the late Henry George Floyd, of Lewisham, to Margaret, daughter of the late John Davies, of Fishguard.

PARRY—LAWRENCE.—On March 8th, at St. Mark's, South Norwood, by the Rev. E. Nelson Wanhlyn, brother-in-law of the bride, assisted by the Rev. J. Morris, M.A., Leonard Arthur Parry, M.D., B.S. Lond., F.R.C.S. Eng L.R.C.P., eldest son of W. P. Parry, of Croydon, to Isabel Sythy, daughter of the late W. Lawrence, of Shirley.

Deaths.

BIDDLE.—On March 9th, at 6, Chandos Place, Broadstairs, Margaret Eileen, the wife Henry G. Biddle, M.R.C.S., L.R.C.P. Lond.

POPE.—On March 2nd, at 280, Goldhawk Road, W., the residence of his son, Dr. Campbell Pope, Edward Pope, M.R.C.S., L.S.A., of Tring, Herts, aged 86.

ED.—F. E. W.

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Calendar of Coming Events.

April.

Sat. 2.—Mr. Golding-Bird's take-in; Drs. W. B. Hope and A. R. McLachlan.

Mon. 4.—First M.B. Durham Exam. begins.

Tues. 5.—Cambridge Third M.B. Schedules to be brought to Medical Office for signature.
First part of the Cambridge D.P.H. Exam. begins.

Wed. 6.—Mr. Howse's take-in; Drs. A. Reid and S. A. Ruzzak; Cl., H. Cardin.

Fri. 8.—Good Friday. Service in Chapel at 11 a.m.

Sun. 10.—Easter Day.

Mon. 11.—Easter Monday.
Second M.B. Durham Exam. begins.

Tues. 12.—Third Conjoint Exam. begins.
Second part of the Cambridge D.P.H. Exam. begins.

Wed. 13.—Mr. Davies-Colley's take-in; Drs., A. E. Clarke and F. Shufflebotham; Cl., A. H. B. Kirkman.
Schedules for L.D.S. Eng. to be left at the Medical Office with the Certificate of Mechanical Dentistry signed not later than this date.

Sat. 16.—Last day for names to be sent in for Third M.B. Camb.

Guy's Hospital Gazette,

APRIL 2, 1898.

The Proposed New House Appointments.

Very shortly it will be proposed by the Medical Council to appoint, probably next July, four additional assistant house-surgeons, making six in all. Two of these are to work the front and back surgeries as at present, and the other four will be attached one to each assistant-surgeon, and the chief duties of each will be to see out-patients on his assistant-surgeon's day, to give anæsthetics for, and to look after the beds of his surgeon during the daytime, and during the night as well, if he live in College. They will not be "residents" in the understood sense of the word, and the appointment will last for three months only. Such are the proposals. The chief and more or less official reasons urged for the new creation are briefly:—

1. *To provide the assistant-surgeons with qualified anæsthetists of which, at the present time, they stand in great need.* We have known an assistant-surgeon to wait for a whole hour because he could not get one, and finally to go away without operating.

2. *To ensure the best attention to the assistant-surgeons' beds, especially to those in the so-called "septic wards."* This practically implies that they are not properly looked after under the existing state of affairs, but there seems to be no evidence in support of this. We have never yet heard from an assistant or a full H.S. that he has too much work to do. At times, of course, there is a slight rush, but we do not see that this can be obviated by the multiplicity of appointments.

3. *To give more opportunities for men to gain practical experience in surgery.*—It is urged that many good men qualify and leave the hospital without having had a good practical appointment. On this point our candid opinion is that out of the 50 to 60 odd men who qualify here yearly, there are certainly not 40 fit to hold house appointments. On the other hand, no doubt the fact that there are so many house appointments to be filled, would look very attractive on the prospectus, but we cannot think that even if the number of entries increased tremendously, that is any guarantee that the quality of the same will be maintained at its present standard. Nay, rather, we think the reverse would be the more likely to prove correct, and that as the quantity increased the quality would proportionately diminish.

4. *That the efficiency of the hospital will be materially increased.*

Granted, then, that the appointments are made, what will be the advantages gained and disadvantages encountered? And in estimating the former there is one fact which must be borne in mind. In the more or less near future, after the opening of Queen Victoria ward, a re-arrangement of the surgical beds will take place. The number of the Assistant Surgeons' beds will be very slightly increased, each having on an average twelve beds, including those beds in Patience and Samaritan.

Advantages.—The advantages then will be:—

1. The greater number of men will obtain a certain amount of practical experience.

2. The Assistant Surgeons' dressers will be better coached and generally looked after.

3. There will now be the possibility of doing A.H.P. and H.P., after having done three months A.H.S.

4. There will be the possibility of a man's doing both forms of A.H.S. and H.S. as well.

5. The Assistant Surgeons will be well served as regards anæsthetists.

As regards 3 and 4, these are obviously the most striking advantages from a student's point of view. The combination of A.H.S. in the surgery and A.H.P. and H.P. will, to all those intending to become general practitioners, be by far the most valuable that could be desired. We made particular inquiry concerning this point, as on it depends, in our opinion, the true value of the new arrangement, and we have the understanding of one in high authority that, as far he knew, there will be no obstacle whatever to a man *who deserves it*, doing either of the above-mentioned combinations.

Disadvantages.—We have already expressed our doubts as to whether forty men will be found each year capable of successfully performing the responsible and important duties of a house appointment. We cannot help believing that one's fellow men know each other's capabilities even better than do those whose duty it is to select them for the various appointments, and it is on this belief that we base the opinion above given.

1. Many men will, of necessity, leave Guy's, having held the appointment of (so-called) House-Surgeon, without having had the slightest experience whatever of accident, emergency, and such like cases. Yet these men will be on a par in the eyes of the laity with those who have done full H.S. This fact alone will assuredly damage, in the long run, the receiver of any testimonial from Guy's.

2. The care of ten or twelve beds for three months is certainly not enough for an H.S. (especially one claiming to be a Guy's H.S.) in which to base his claim to any outside appointment or position. And imagine what damage it will do to the school in after years, when it becomes generally known that Guy's Hospital turns out House-Surgeons (so-called) who have had the care of a dozen beds for only three months. Moreover, this will hit those who have done full H.S. extremely hard, for the general public will not, and cannot be expected to differentiate rightly between the value of the terms A.H.S and H.S.

3. That considerable confusion, to say the least of it, will exist, if, when an urgent case is admitted, and perhaps operated on during some afternoon, the H.S. is left with the care of it during the night. The H.S. will be totally ignorant as to the condition of the case, and will have to depend entirely on his quickly-formed opinion, in his treatment of the case. The present difficulties of the full H.S. will be increased tremendously by the night charge of comparatively unknown patients.

4. That cases admitted into a general ward under an assistant surgeon are quite as important and need the experience and skill of a full H.S. for their management, quite as much as do those admitted under a full surgeon. Obviously, too, if two men have alternate charge of one case, the ultimate result of that case cannot be as satifactory or, in our opinion, as good as when one man had entire charge.

5. That really good men will not attain the pre-eminence they deserve.

6. That there will be an increase in the work of the nursing staff of any particular ward, as the sister will have two H.S.'s with whom to go round and a certain perplexity as to who to send for in case of need.

7. That there is the possibility of certain A.H.S.'s becoming full H.S.'s without having had the slightest experience as regards the care of in-patients or the routine of the office and such like.

8. That the present appointment of clinical assistant in the surgical wards will be reduced in value, as under the new regime, though such an one be qualified, he will rarely have the opportunity of giving an anæsthetic or of being substitute for his H.S. when the latter is temporarily prevented from fulfilling his duties.

9. That the value of the Guy's house-surgeoncy will soon be reduced in the eyes of the outside public to that of any other London hospital. At present it is decidedly above it.

10. Under the present circumstances the liberality of the assistant surgeons, with regard

to casualties at night, in favour of the H.S. for the week is most noticeable. They cannot be expected, therefore, to give away to the junior house-surgeons operations occurring with the few beds over which they have control. Therefore, such A.H.S.'s will be surgeons in name only, certainly not in practice.

To the impartial mind reviewing the whole question, the following alternatives will, we think, present themselves:—

1. The appointment of four qualified anæsthetists or assistants (whatever you care to call them) to the assistant-surgeons.

2. The increase in the duration of the present appointment from three to six months, with the appointment of two A.H.S's every three months, so that four may be on duty at one and the same time—two working the front and back surgery, and two following the work of the assistant surgeons. No increase in the number of house appointments would then be necessary. In addition to this, the appointment of two qualified anæsthetists would probably be found useful.

We have thus set before our readers the fors and againsts of the suggested appointments. If no fundamental alteration can now be made in the proposal, concerning which we cannot but wish we had received more notice, we would at any rate most earnestly plead with the authorities for the following modifications in the suggested scheme.

1. More distinctive, and less fallacious titles to the new officials.

2. The postponement of the new arrangement until the re-division of beds has taken place.

3. Or even until the new nursing home has been built and occupied, and the dormitories corresponding to Samaritan opened as an additional "septic" ward—a crying need at the present time.

In conclusion, we would point out that the above are our own, perhaps hasty, but at any rate, candid opinions on a difficult and intricate question. If we have exaggerated or minimised the relative values of the arguments, we beg o be excused, as a short couple of hours was all the time that was spent in elaborating this more or less incomplete article. Moreover, we are quite open to correction by any of our readers who will honour us with their opinions; yes, and we shall be extremely thankful for them, for we cannot but think that this is a subject, the importance of which can hardly at present be estimated.

Cancer of the Breast.

CLINICAL LECTURE BY Mr. GOLDING-BIRD.

March 16th, 1898.

Gentlemen,—I must apologise for choosing such an ordinary subject for to-day's lecture, but there are some points about Cancer of the Breast which have been agitating the profession for the last few weeks. And what I propose to do is to put them before you just as you will meet them afterwards in practice. I will read you a report of a case and will make remarks on the various points as they crop up. This is a very characteristic case in a woman aged fifty; and *à propos* of age, there is the interesting question, "Does age influence the appearance of cancer of the breast?" Now, Gross, of America, concluded, from an examination of a large number of statistics, that forty-eight was the average age at which cancer of the breast made its appearance; but do not be led astray by the notion that this disease is most often seen in old or oldish women; you may see it in quite young women, patients in their "twenties," and it is by no means rare to find it in women in their "thirties." Generally speaking, the younger the patient the less scirrhus-like will be the growth, the scirrhus character being due, as you know, to the development of white fibrous tissue. In younger women cancer is most virulent because the cell element predominates; there is very rapid involvement of glands, and, indeed, the disease is sometimes limited by months instead of years.

The opposite extreme is seen in the case of old dames of seventy years or so; they may have suffered for years before they come to you about their affliction, and when you ask them on their coming to you, "Does it hurt?" they answer, "No." "Then why did you come to me about it?" "Well, doctor, the breast looks so ugly, it is all crumpling up." And this crumpling up is due, of course, to the contraction of the fibrous tissue.

Then, again, there is the question of the influence of marriage and childbearing on the appearance of cancer of the breast; there are hosts of opinions on this subject, but I think you may take it that the influence is very slight; some say that, if a woman be married and childless, the breast is more liable to become the seat of cancer, because it has no function to perform, but experience does not confirm it.

History of present trouble.—Four or five months ago our patient noticed a small lump,

about the size of a marble, under the right nipple. There was no pain.

The patient's story as to the length of time the tumour has been present is of no value whatever; they often say only two or three weeks, and yet, when you examine the breast, you find a tumour the size of a couple of walnuts; the fact is that they don't notice the growth unless they experience pain, or there is a lump large enough for them to notice when washing or even to see in the mirror. The next point we notice in the report—an excellent one by Mr. Jensen—is the absence of cachexia; but I always insist, and have already mentioned it in one of these clinical lectures, that in malignant disease you do not find cachexia unless the disease interferes with the performance of important vital functions or is a constant source of discharge or of pain; in this case there is neither pain nor discharge, and the disease affects no part of which the patient is conscious, except during certain movements of the arm. To continue the report—Inspection of the right breast shows a slight wrinkling of the skin extending from just below the nipple downwards to the lower limit of the breast. The nipple is slightly retracted, but not inverted. The skin over the tumour is normal. On palpation a large nodular irregularly-shaped mass of about two-and-a-half inches long by two inches wide, is felt extending from just below nipple downwards. It is attached to the skin, infiltrating breast substance and probably attached to deep structures.

As to the importance of attachment to the skin, the presence of this physical sign is an important symptom, but its absence is of no value as a negative to malignant disease; it simply depends on whether the growth has begun to affect the vertical fibrous bands which connect the breast and the skin over it. The same thing may be observed in fatty tumours, only here you pinch the skin between your fingers to see if it will rise away from the growth. In that case of apparent keloid of the buttock, which I referred to in my last lecture, and which turned out to be tubercular, there was the most marked puckering of the skin, so that a well-known surgeon who saw the case with me was inclined to think it was carcinoma from the puckering of the skin, and the stony hardness. The report goes on to say that the breast was infiltrated with growth. Now, of course, that is a point on which we rely largely to distinguish malignant tumours from adenoma of the breast; the former are never encapsuled, and when you have made out that a tumour is not encapsuled, look out at once for malignant disease—sarcoma, or more likely carcinoma. The report also states that there are no nodules to be felt in the muscle; that is a good point to put in the report, but it is valueless as a point in determining the question of operation—except that, perhaps, if nodules could be felt, you probably would hesitate before operating.

The glands in the right axilla were hard, but not enlarged; this also should render you suspicious. At the operation they were found to be diseased, and this leads me on to another point in the diagnosis—and one, by the way, that frequently comes up as an examination question: Does the character of the glands help us at all in the diagnosis? Can you distinguish between glands affected by inflammation and those affected by cancer? Well, other things being equal, if the glands are small and hard, they are likely to be caused by new growth. Generally, in conditions due to inflammation, the glands grow rapidly to a fairly large size, are moderately hard and usually very tender. Having made the diagnosis we advised operation: what should determine the style in which to operate?

And first: Is there only one way to operate? I have, in my time, seen carcinoma of the breast operated on in several ways. Take for instance the period about 1868 or 1870. At that time surgeons used to remove the whole breast but not the nipple. As a result the nipple used to get bound down to the chest wall and used to hurt; so then they began to remove the nipple. I well remember Mr. Birkett operating and his asking Mr. Foster, who was sitting watching him, if he had come there to see if he took away the fascia from the pectoral muscle, for Mr. Birkett was a very good dissector and prided himself on being able to remove the breast without hurting the fascia. Of course, now all that would be considered absolutely wrong. We now go so far as the removal not only of the breast, but of the skin around, of the lymphatic tract leading up to the glands in the axilla, and of more or less of the pectoralis major muscle. This operation was really devised on anatomical grounds. It was found in the subcequent examination of a case which had been operated upon, that in the muscular tissue were cell-islets of disease, which could not possibly have been noticed by the surgeon, and it appeared that the lymphatics from the breast did not run entirely towards the arm as had been thought. We used to rather ignore the presence of lymphatics ramifying in the

fascia over the pectoralis major, the lymph from which is collected by lymphatic vessels which followed the course of the perforating arteries to the internal mammary. When removing the breast in this way, you must dissect out the gland and the skin together, and then carry the whole dissection up to the axilla still in one piece, so as not only to remove the affected glands, but also to clear out the lymphatic track connecting the latter with the breast; otherwise you may set free cells which are present in these lymphatics.

This major operation is advocated by some surgeons in all cases; but I think, with others, that each case must be treated on its own merits.

I will read out the chief points in the operation on this case. The patient was given A.C.E., and a racket-bat shaped incision, with the narrow end in the axilla, and completely encircling the heart, was made. The subcutaneous tissues and fat were completely divided. The breast was grasped and drawn up and then dissected from the chest wall, the knife being kept close to the latter. The sheath of the pectoralis major was removed throughout with the breast and the sternal half of the muscle itself, as the growth was somewhat adherent to it. The dissection was then continued up into the axilla, glands and fasciæ being removed in one piece with the breast.

In a large number of my own cases I have been content with removing only the superficial layers of the muscle, and local recurrences I may say, are very few in number in my practice; it is recognised that this is sometimes sufficient for a cure; though Mr. Jacobson, in his book, strongly advocates the removal of the sternal half of the pectoralis major in every case; if you remove the clavicular part, the result is very serious, the chances are that after the operation, the patient will not be able to move the arm from the side, while after removal of sternal half, there is practically a thoroughly useful arm. A case requiring removal of the whole pectoral muscle is hardly likely to be a suitable one for operation.

Then as to the after treatment of these cases, I am rather particular. Is it necessary to drain in these cases? Very few of you have seen me use a drain; we stop all the bleeding at the operation, and there is very little likelihood of oozing if firm pressure is maintained by the dressings. But is there any gain from drainage? Well, the harm of retained blood is not entirely confined to organisms, which getting in, poison the wound, of course, and once there, they will run riot; but if no organisms gain access to the wound, does the presence of the blood do harm in any way? It seems it does, for experiment has shown that the injection of aseptic, yet chemically disorganizing blood, gives rise to symptoms of poisoning, and some cases of sapræmia have been explained in this way. You can therefore, if you like, use a rubber drain, or what is far more comfortable for the patient, introduce a piece of iodoform gauze in the wound, always changing it on the second day. Then as to the bandaging, I am somewhat particular also about that. Some surgeons, I am sorry to say, still follow the old way and include the hand in the bandage, bringing it up to the opposite shoulder. There are two objections to this, an antiseptic one, and one from the patient's point of view; the first being that it is very difficult to keep the hand aseptic, and the second being that when the arm is taken down, passive movements of the fingers and elbow have to be undergone, and these are very painful for the patient. The bandage I use circularly confines the upper arm to the chest, and closes the axilla below by being lastly carried vertically over the shoulder; it forms a perfect bandage, and never slips; the patient may begin feeding herself the next day, and many do.

These are the points that the report has suggested to me, and now I want to put before you one or two questions. They may seem ridiculous, but in practice people will ask them again and again. And first, Is there any justification in operating at all? A patient will say to you, "Doctor, why do you propose to operate? Can you cure me?" Well, if you are honest you will say you cannot. They naturally answer, "They why touch me?" You must be prepared with your answer, that it all turns on the meaning of the word cure. At the Medico-Chirurgical Society this winter there was a discussion in which much misunderstanding was caused by the different ways in which various people used the word. A cure in the quack's sense of the word can never be the case in cancer of the breast; *i.e.*, if cure is used in the sense of an absolute antidote to a disease. I cannot *cure* gangrene of the leg, I can only amputate the leg. Similarly you can't *cure* ague, you can give quinine, and the patient may get much better, but you don't cure the disease. I look on a cure as an absolute antidote to disease, as if you were to add alkali to an acid. Again, can you absolutely and surely in any given case cure syphilis? Are you prepared to declare that a man who has

been treated say for years, will never get a gumma? You can't do it; and surgeons confess nowadays that experience shows that, *speaking of individual cases* you cannot make absolutely certain of curing even syphilis.

Well then, we will take it that, for any single individual taken separately, you cannot be certain of a cure. But then you look at statistics, and you find that the results show that an enormous percentage are cured. In the figures of the major operation above described, Watson Cheyne gives fifty to sixty per cent. as cured, as compared with ten or fifteen per cent. of a few years ago.

The only answer to this question is, then, that you point to these statistics, and you tell your patients that they must take their chance with the others; let me do such an operation, and the chances are that you will be cured. Now, the quack says that such and such a remedy *will* cure you; and if you should prosecute him and say that your friend rubbed his cancer cure in well, but was not cured, he has a good defence; he owns that he said that it would cure the patient, but then he did not say how long it would be about it; if the patient chooses to go and die during the course of the cure that is his look out; I promised to cure him, but I did not say in what time I should do it. It seems to me that the nearest thing we have to a typical cure is the antitoxin treatment of diphtheria. You must, if honest, explain that to "cure" is to "neutralize"; but ninty-nine times out of a hundred we have to remove the disease, and part of the body with it, or wait for "absorption" or "neutralization" by natural processes, and this last does not occur in cancer; so the former expedient alone is left us, and the more thoroughly done, the better the chances in the future.

With such explanation you can use the word "cure"; but an antidote to cancer—the ideal cure—we do not possess.

Another question you will be asked is: How much are you going to remove? You may remove everything you can; you may take away the breast and the pectoralis major, and scrape the chest-wall; you may cut away the upper part of the latissimus dorsi and the digitations of the serratus magnus; you take away the glands in the axilla; you may cut through the clavicle and remove the glands from the neck; you may complete it by taking off the arm and the scapula. But is there any limit? Where are you to stop? Theoretically, indeed, there is no limit; but, practically, experience steps in and becomes your sole guide and checks your theory. You must ask yourself if the game is worth the candle—whether adequate good will come from this extensive operation to your patient.

Your patients good is the goal you aim at. Your glorification as a bold operator must balance the benefit you can confer, against the suffering and disability you will cause, and then act to the best of your judgment. Cancer is a local disease; circumvent it if you can, but your area of operation is limited by the gain to your patient. Many years ago Gross laid down from the results of statistics, that if you have glands above the clavicle, the operation is not worth doing at all; by the time the cervical glands are affected the mediastinal glands are involved also. You may operate—but not to cure—merely to relieve the patient of some distressing symptoms, as for instance, if there is a bleeding fungoid mass, by removing which you get a clear granulating surface, and thus give great relief: this in justifiable: you operate to make life more endurable.

As to the advisability of doing the major operation, do all surgeons agree? Some very curious facts came out at the late discussion to which I have referred. Statistics were brought forward which showed that a large number of cures resulted from the old operation of removing only the breast—when I say cures, I imply that the disease was kept in abeyance for some years. Halstead laid it down as a rule that the absence of recurrence for three years after the operation might be considered as a cure; but at the discussion it was agreed that this period was too short. Three leading surgeons said, "We are quite content with the minor operation: we do not remove the fascia, and we should not dream of taking away the muscle." One even went so far as to ask whether it was ever worth while to operate in cancer of the breast, but against this opinion there is a large mass of evidence for the success of the major operation. Others advocated the full operation every time; probably the truth, as usual, lies between the two extremes. If there is a little tumour under the nipple, and a large amount of tissue between it and the muscle, it is often sufficient to remove the entire breast, perhaps taking off the fascia for safety's sake, and then continuing the dissection up the axilla.

Then there is the question of the removal of the glands; for some surgeons are against removing the glands at all; urging that when you get disease of the breast, the glands in the armpit first enlarge, and thus are a kind of sentinel at the gateway into the circulation, stopping the

dissemination of the disease. The answer to this is simple, you not only remove the glands, but you remove the track as well; if you were to remove the breast and then pick out the glands from the axilla, leaving the track between the two, then the argument might hold that it would be better to leave the glands which would then act as a bar to the further spread of the cancer left in the track, but if the track is removed the glands must be also. Besides, they act as centres of secondary infection for other glands.

There is another question which is interesting, and often comes before you in practice. When you get cancer after an operation, is it a recurrence, or is it a new attack of the disease? Now there are the most opposite opinions held on this point. At the discussion, one surgeon spoke on this subject, and strongly held that if cancer occurred after three or four years, it was a new inoculation; he spoke strongly of the heredity of cancer, but we have no proof whatever of heredity. If you accept this view, then assuredly if the patient have a hereditary taint, she is likely to suffer again, but in the absence of any definite proof, one has no right to bring forward heredity as an argument. This is a question which the friends of the patient will ask, what they say is "You have removed all the disease, can it ever come back again?" and any answer will not do, you must be pretty clear on the subject. Where recurrences occur any time up to seven or ten, even to twenty years, they still are true recurrences and not new departures, for—and this is a most important point—they always recur in tissues not primarily effected, as in the lymphatic glands, or in the spine, or the other bones, but especially in the spine. Now, if the patient has a hereditary taint or other tendency, why does cancer not recur in some other organ which is likely to be primarily affected? Why especially does it not recur in the other breast? Out of the large number of cases that you will see in the whole of your career, you are not likely to see more than three or four instances of the disease affecting both breasts, and then you will almost certainly be able to trace the track of the disease across the front of the sternum. Rarely cases do occur in which the disease being removed from one side, the patient gets well and there is then reappearance on the other side quite independently. When such happens no one can deny that that might be a new departure, in fact, if the patient had hereditary or other tendency, it probably would always occur there. But as I have said, it does not, but always recurs in tissues not primarily affected, so that you must answer, "If your friend is going to have it again it is because the disease is malignant and is lying latent somewhere or somehow. Every surgeon has known it recur in the glands and bone after a number of years, so that the whole argument tends to this: that it is a recurrence and not a new departure; the only case where you might regard it as a new departure being that in which it occurs in the opposite breast.*

Then as to the causes; and first the question of heredity. It is perfectly true that this is the opinion of many practitioners, and that their opinion is of immense value because they see so much of family life. It may occur, and does, you say, in the mother, the daughter, and the niece; but that is no proof of heredity; the fact remains that cancer is exceedingly common. There is hardly a family without a history of cancer in one member of the family in each generation, but this is no proof of its heredity in any way.

Mr. D'Arcy Power has drawn attention to "Cancer Houses." You see people successively following into a certain house and from each family a member dies of the disease; and there are so many examples of this that I think there must be something in it. I grant that you can no more prove it than you can the hereditary theory, but it seems so very strange that it should pick out in this way members of *different* families. It is a point well worth bearing in mind as indicating infection.

And, lastly, I will mention those cases in which there has been an operation for cancer of the breast, and there is a recurrence in the scar. These nodules are removed, sometimes repeatedly, and the patients have yet lived for many years; and it has been suggested that the local recurrence acts as a kind of safety valve. A similar opinion used to prevail as to ulcer of the leg, which was looked on as a good thing for the outlet of the "humours."

The truth is that they are peculiarly lucky in the growth happening to take place in a part where the surgeon can remove it. It is a case of sheer good luck, and it is your duty to remove the nodules, and in a large number of cases the patients get quite well, and remain so.

* Since this lecture was given a lady has presented herself, whose left breast I removed for cancer ten years ago. She has remained perfectly well till quite recently, when a reappearance in the other breast has occurred.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Circulatory System.

Stephen 2. Aortic aneurysm.
11. Mitral regurgitation.
26. Mitral stenosis and regurgitation. Tricuspid regurgitation. Aortic regurgitation.
Philip 15. Aortic stenosis. Mitral regurgitation.
19. Infective endocarditis.
29. Morbus cordis (congenital), with secondary albuminuria and cyanosis. Bronchitis. Gout.
Mary 27. Morbus cordis. Mitral incompetence.
50. Mitral stenosis.

Nervous System.

Stephen 22. Neurosis. Pain in back.
25. Neuritis.
28. Locomotor ataxy.
32. Chorea. Mitral stenosis and regurgitation. Aortic regurgitation.
Philip 7. Chorea.
20. Acute specific myelitis.
Mary 40. Paraplegia. Increased knee-jerks.
47. Paraplegia. ? Spastic. ? Ataxia.
Cot 53. Tubercular meningitis.

Alimentary System.

Stephen 14. Hydatids of liver and abdominal cavity.
16. Appendicitis.
33. Appendicitis.
37. Mitral stenosis.
P. R. Pancreatic cyst.
Philip 16. Gastric ulcer.
36. ? Gastric growth.
Mary 4. Gastric ulcer. Hæmatemesis.
5. Chronic intestinal obstruction. Growth in sigmoid.
13. Jaundice. Cirrhosis of liver.
15. Gastric ulcer.
20. Enlarged spleen. Hæmatemesis.
28. Subacute peritonitis with hepatic enlargement.
37. Abdominal tumour.
46. Enlarged liver.

Genito-Urinary System.

Stephen 1. Hæmaturia. Acute nephritis.
15. Diabetes mellitus.
24. Intestinal nephritis. Gastritis.
36. Chronic interstitial nephritis.
Philip 4. Chronic interstitial nephritis.
5. Diabetes mellitus.
8. Paroxysmal hæmoglobinuria.
13. Acute tubal nephritis.
23. Hæmaturia, probably from left kidney. ? Vesical.
26. Acute nephritis.
Mary 8. Chronic tubal nephritis.
11. Acute tubular nephritis.

Respiratory System.

Stephen 8. Pleuro-pneumonia.
13. Bronchitis. Albuminuria.
17. Double lobar pneumonia.
18. Bronchitis.
19. Pleurisy.
20. Hæmoptysis.
21. Phthisis.
Cot. Broncho-pneumonia.
Philip 1. Empyema.
9. Acute phthisis.
12. Pleuritic effusion. Empyema.
24. Chronic disease at right apex. Compensatory emphysema. Albuminuria.
25. Right pleurisy with effusion.
26. Empyema left.
35. Right empyema (spontaneous opening).
37. Chronic pleurisy with local consolidation. Left lung probably tuberculous.
38. Hæmoptysis.
39. Pleuritic effusion right.
Mary 12. Phthisis.
14. Pneumonia (convalescent).
19. Bronchitis.
22. Lobar pneumonia. Left apex.
24. Acute bronchitis.
31. Lobar pneumonia (apical). Basal systolic bruit.
41. Chronic pneumonia. ? Tubercular.
44. Phthisis and bronchitis.
45. Lobar pneumonia.
48. Phthisis.
49. Phthisis.
Cot 55. Lobar pneumonia.
Cot 57. Distended abdomen. ? Tubercular.

Miscellaneous.

Stephen 5. Acute rheumatism.
23. Chronic plumbism. Gastritis. Hypertrophied heart.
29. Rheumatism and bronchitis.
35. Enterica.
37. Pernicious anæmia.
38. Acute rheumatism. Aortic regurgitation.
Philip 3. Acute rheumatism (relapse). Pericarditis and pleurisy.
10. Psoriasis.
21. Rheumatism. Synovitis of both knees.
22. Psoriasis.

Philip	30.	Purpura. Marasmus.
	31.	Eczema.
	32.	Acute rheumatism.
	40.	Epistaxis.
Mary	3.	Eczema.
	6.	Alcoholism.
	10.	Ovariotomy.
	29.	Pityriasis rubra.
	33.	Ulcus ventriculi.
	39.	Acute rheumatism.
	43.	Acute rheumatism.
Cot	51.	Broncho-pneumonia.
Cot	52.	Eczema.
Cot.		Diphtheria. Tracheotomy.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman	2.	Mastoid abscess. Operation. Hernia cerebri.
	4.	Sarcoma (periosteal) of fibula. Stoke's Gritti's amputation.
	8.	Recurrent hæmorrhagic sarcoma of fibula. Removed first twenty years ago.
	17.	Old painful dislocation of ankle.
Charity	10.	Cleft palate.
	11.	Hammer toes.
	12.	Carcinoma mammæ.

Cases under Mr. Davies-Colley.

Luke	1.	Inguinal hernia. Radical cure.
	4.	Femoral hernia. Omental irreducible. Radical cure.
	11.	Epithelioma of œsophagus.
	20.	Injury to hip. ? Intracapsular fracture of neck of femur.
Lydia	1.	Carcinoma mammæ. Amputation.
	2.	Early morbus coxæ.
	4.	? Rodent ulcer of face. Excised.
	5.	Strangulated femoral hernia. Reduced under anæsthetic.
	6.	Tuberculous elbow.
	18.	Carcinoma mammæ.
	19.	Tuberculous tarsus.
	20.	Epithelioma of rectum.
	22.	Paralytic talipes equinus.
Cornelius	1.	Fractured base.
	4.	Fractured tibia and fibula.
	7.	Compound fracture of humerus. Amputation.
	13.	Fractured dislocated cervical spine. Death.
	15.	Spinal concussion.

Cases under Mr. Lucas.

Job	2.	Caries of ribs. Abscess. Incised and scraped.
	7.	Necrosis of mandible.
	9.	Displaced semilunar.
	16.	Stricture.
Lydia	10.	? Sarcoma mammæ.
	12.	Strangulated femoral hernia. Kelotomy.
	15.	Strangulated femoral hernia.
Charity	1.	Carcinoma mammæ. Amputation.
	4.	Bursa.
	21.	Morbus coxæ.
	22.	? Cystic breast, ? Malignant.
Astley Cooper	8.	Cut throat. Death. ? Shock.
	13.	Fractured patella.
	20.	Hæmaturia in axilla.
	22.	Fractured femur.
	26.	Subcoracoid dislocation of shoulder.

Cases under Mr. Golding-Bird.

Lazarus	4.	Epithelioma of tongue and glands.
	11.	? Epithelioma of thumb. Amputation.
	13.	Prostatic calculi.
	15.	Sacro iliac abscess.
	18.	Tuberculous shoulder.
Martha	7.	Tuberculous stricture of rectum.
	17.	Talipes equino-varus.
	20.	Epithelioma of rectum. Kraske's excision.
Cot	D.	Pott's disease and lumbar abscess. Incised.

Cases under Mr. Jacobson.

Naaman	20.	Tuberculous glands in neck. Excision.
Dorcas	1.	Tuberculous glands in neck. Excision.

Cases under Mr. Symonds.

Martha	15.	Osteitis of radius. ? Syphilitic. Exploration. Pus evacuated.
Job	11.	Tendon adhesions and median and ulnar paralysis following compound fracture of forearm. Neurorraphy and resection of ulna and radius.
Luke	16.	Epithelioma of larynx. Thyrotomy and partial excision.
	17.	Tubercular osteitis of femur.

Cases under Mr. Lane.

Dorcas	4.	Rectal appendicitis. Removal of appendix.
Job	12.	Bilateral ankylosis of hips. ? Cause.
	13.	Rectal appendicitis. Removal of appendix.
Samaritan	11.	Gumma of buttock. ? Becoming malignant.

Cases under Mr. Dunn.

Lazarus	3.	Undescended testes. ? Congenital hernia.
	15.	Caseating glands. Adenitis.
Martha	12.	Tumour of breast. ? Chronic mastitis. ? Carcinoma.
Samaritan	7.	Cellulitis of elbow.
	10.	Cellulitis of foot.

"Clinical."

John 2. Dilated stomach from old peritonitis.
4. Double resection of gut for malignant growth.
6. Obstruction of S.V.C. and trachea by mediastinal growth. ? Tubercular. ? Thymus. Æt. 9.
7. Hepatic abscess.
9. Aortic and mitral disease.
12. Diabetes.
13. Perforated gastric ulcer. Operation. Cure.
15. Congenital heart. ? Patent ductus.
Miriam 17. Mitral disease. Tricuspid regurgitation.
24. Neurosis. Supposed Addison's disease.
28. Encysted peritonitis. Perihepatitis. Drainage.
Cot 34. Tracheotomy. ? Diphtheria.

In the Out-Patients' Department.

Cases under Mr. Symonds.

March 3rd, 1898.

I.—A rather sickly-looking child, æt. fourteen months, was brought up for double scrotal swelling.

On examination, there was an oval, elastic swelling on each side of the scrotum. Both were translucent, presented an impulse on crying, and could be partially reduced back into the abdominal cavity, but not with the "gurgle" characteristic of a hernia. The testicles were both descended, lying at the bottom of the scrotum, were visibly unconnected with the swellings, and, at the same time, were distinctly larger and harder than normal. There was no phimosis.

Mr. Symonds was inclined to regard the case as an example of the rare condition known as "diffuse hydrocele of the cord," while the enlargement of the testicles was probably due to congenital syphilitic inflammation.

II.—A little girl, æt. 2, came with a unilateral, purulent discharge from the nose, which was sometimes blood-stained. There was no history of injury or specific fevers.

On examination, the right nostril was seen to be partially occluded with discharge; it was also tender to the touch.

Mr. Symonds, in remarking that the commonest cause of such a condition in a young child was a foreign body, inserted a probe along the floor of the right nostril, and turning the end upwards and forwards, succeeded in extricating a boot-button!

In spite of the numerous kinds of forceps that have been devised for extracting foreign bodies from the nose, the simplest and most practical instrument is an ordinary probe, used in the manner above described.

March 10th.

James G., æt. 60, labourer, came for pain and swelling just above the left knee-joint. It had been present for six months and there was no history of traumatism. The pain was worse on walking about, and was easiest when quiet in bed.

On examination, the lower part of the left thigh was obviously larger than the right. There was a diffuse, fairly uniform swelling extending for six inches above the left knee-joint. The tissues surrounding the lower part of the left femur were thickened and harder than normal, especially along the outer and back part. The skin was adherent to the deeper structures, and the surface-temperature of the part was slightly raised. It was not tender. The movements at the knee-joint were unrestricted. No enlarged inguinal glands could be felt. There were no evidences of tertiary deposits in tibiæ, clavicles, etc.

Mr. Symonds pointed out that if the femur were enlarged it could only be due to (1) new growth; (2) inflammatory processes.

Of the former, sarcoma of the periosteal variety was the more likely, in spite of patient's age, and of the latter, tertiary specific inflammation.

The value of a skiagraph in such a case was considerable as showing whether the enlargement was bony or muscular, since such a condition could be readily simulated by the rare disease known as "myositis ossificans," a case of which has been recently diagnosed by the aid of the skiagraph.

At the same time, patient was given Mist. Pot. Iod. ʒi. t.d.s. G. N. M.

Guy's Hospital Debating Society.

The Annual Ladies' Night of this Society was held in the Club Smoking Room on Saturday, March 26th. Owing to Dr. Pavy being called away from home at the last moment, Mr. Fripp took the chair. In spite of the very bad weather the fair sex was well represented, many sisters, nurses, and lady medicoes being present. The minutes of the last meeting having been read, the chairman called upon Mr. F. E. Fremantle to propose that "The degree of liberty which women enjoy in England at the present day, is the utmost either requisite or expedient."

Mr. Fremantle having reviewed the position of women in patriarchal times under the Greek Republic and among native African tribes at the present day, pointed out that those of England were at this time the freeest of all their class, and proceeded to compare the present condition of womankind in France and this country, quoting in support of the superiority in the United Kingdom a French novelist who said this was due to the following causes: English women were allowed more freedom from their childhood, and so were less liable to illusion—having thus come more in contact with the world. And their common sense was

stronger owing to their better education, to travel, and to their freer contact with others; whereas, on the other hand, in France, women up to the time of marriage, were kept at home, having to give strict obedience to their parents, and being allowed no responsibility. Owing to the class of women who were wage-earners, these were chiefly occupied either as nurses or in education. Women were especially fitted for these pursuits, their patience making them particularly apt teachers, and here their freedom was all that could be desired. Dealing with the question of women in politics, the proposer pointed out that they may now help in local government; but he did not think it advisable for them to be allowed a voice in Imperial matters, because this would cause a sudden large addition of uneducated voters to the register, and their interest would be taken from domestic affairs.

Mr. W. R. Cazenove, in opposing the motion, showed that women have been gradually becoming emancipated from patriarchal times onwards, and endeavouring to stem the tide of this evolutionary progress, was like Knut trying to keep back the ocean tide by the force of his will. The proposer's ideal of womanhood seemed to him to be to love, honor and obey, and cook a dinner, but his own, was one who possessed all useful powers in a great degree. Women, therefore, should be allowed to find out for themselves what their powers were, and have absolute freedom to bring them to the highest degree of perfection. Speaking of the proposer's argument against women being given a vote in Imperial affairs, the speaker considered that the illiterate women voters would balance the illiterate men.

Mr. J. M. Fortescue Brickdale said he thought that the first two speakers had dealt chiefly with detail, and had not noticed the broad principles underlying these. Business men are unable now to keep up the cultivation of the arts and ordinary accomplishments of life, owing to the stress of their commercial existence, how much less, then, would weaker women be able to do so when brought under the same conditions. Women, on the other hand, in their present leisured condition are able to pursue various branches of art, and keep up the refinements of life, and so exercise a powerful civilising influence, so to speak, on the community, which would disappear entirely if they were brought into competition with men as wage-earners, and lead to the degeneration of social life.

Mr. W. K. Wills said that the first of all women was certainly the newest; unfortunately for the present discussion, she was born a wife, but there was no indication whatever that she was not on an equality with the man of that time, and, therefore, ought to be so again now. The motto for women and their supporters in the present day must be "liberty, freedom, and enfranchisement."

Miss Forsyth said that the only reason for women being in an inferior condition to men, was some form of the doctrine that might is right, and, in running over the proposer's historical review of the position of women, pointed out that man's superior physical strength was the only thing that had kept women down in the past, but that this rule of might was now over. With regard to the execration which had been heaped on women in the medical profession, it seemed to her most illogical, since nurses were commonly held to belong to a most honourable calling, and these saw the same sights, etc., as lady medicals. With regard to the franchise, since women were punished by the same laws as men, they most certainly ought to have a voice in the making of these laws.

Miss Wellburn maintained that it was impossible to limit one sex in the present fashion without limiting the other, it was like preventing one pair of horses out of the four of a coach from runnng—the others had to drag them. The speaker deplored the cramped education which was given to women in the present day, and considered that if women were allowed the same facilities for education as men, the fear of adding a large number of illiterate voters to the register, on giving them the franchise, would soon pass away. Finally, men would have to master their contempt for women as she gradually brought herself on to an equality with him, as she was doing.

Messrs. F. Lowe and A. B. Passmore then addressed the house, and the opposer and proposer having replied, a division of the members was taken.

For the motion	... ...	21
Against the motion	... ...	17
Majority for	...	4

A division of the whole house was then taken.

For the motion	... ...	25
Against the motion	... ...	50
Majority against	...	25

A vote of thanks to the chairman having been carried with acclamation, the meeting terminated.

From the Gazette's Special Pathologist.

NOTICES.

W. E. S. C., Upper Tooting.—The growth on the blood-serum after incubation consisted of staphylococci. No Klebs-Löffler bacilli were found.

T. F., Oldham.—No tubercle bacilli could be found in this specimen which has many of the characteristics of bronchitic sputum.

H., Ramsgate.—Tubercle bacilli are present in the sputum in small number.

T. R. A., Sherborne.—No tubercle bacilli could be found in the sputum, which appears to be derived from the upper parts of the respiratory tract.

A. T. F., Ramsgate —The tumour of the breast is a well-encapsuled adena-fibroma. The stroma is very dense and abundant, and there is no evidence of malignancy in it.

C. J., Malpas.—The hair-like bodies floating in this urine are many of them actual portions of hair, while the majority are pieces of vegetable fibre. We could detect no blood discs in the centrifugalized deposit of the urine.

PATHOLOGIST.

Correspondence.

To the Editor of Guy's Hospital Gazette.

The Results of Twelve Months of Clinical Assistants in the Medical and Surgical Wards and at Out-Patients.

Sir,—This being a question of importance to Guy's men, both present and to come, I hope that you may consider suitable for inspection and discussion.

I. *The "good" done by these appointments:—*

(*a*) Valuable experience to the men so appointed as affording them an opportunity of thoroughly examining every case admitted under the surgeon to whom they are attached.

(*b*) That the hospital reports are in some cases fuller and more accurate.

(*c*) That the clinical assistant is of distinct use to the medical ward clerk in his first month.

II. *The "harm":—*

(*a*) That the surgical ward clerks nowadays rarely, if ever, see a dressing, and in consequence come on as assistant surgeons' dressers without the slightest knowledge of either surgical cleanliness or bandaging.

(*b*) That as the result of this the appointment of full dresser will be done by men utterly unfitted for the responsibility of that appointment.

(*c*) That all originality in the work of clerk is done away with, and that he becomes a "clerk" and nothing more.

(*d*) That the value of obstetric out-patient clerk has been reduced to nil.

The surgical ward clerk now hangs about all the morning at the tail of the clinical assistant, instead of, as formerly was done, attending the dressings of his cases. Of late we have seen men holding these appointments whom we used to consider the most ignorant of their year, and it is easily concluded from this that much that they teach is absolutely wrong.

The multiplication of appointments, though it may increase the numbers of the medical school, will not increase its efficiency, and more important still, will not attract the best men to Guy's.

It is surely a fact that there are men who chose their medical school because it is the hardest in which to gain a house appointment or a senior appointment of any kind; they formerly chose Guy's because it was a greater honour to hold a house appointment there than in any other hospital in London. Will they do so now?—I am yours faithfully, ONE OF THEM.

Cup Teams.

Dear Sir,—Now that the Inter-Hospital Rugby competition has been finished, I feel that I can call attention to what seems to be an essential defect in its rules, without being suspected of any particular reference. I would suggest that greater encouragement would be given to hospital football if the competition were confined to the regular teams of the various hospitals, than by allowing the practice of playing active members of other clubs. In the rules of our club there is, I believe, an obsolete regulation which was apparently designed to prevent this thing at Guy's, and I think it would be desirable to have a more stringent rule to accomplish this object in the Inter-hospital competition. This would encourage hospital football, and might obviate bad feeling arising from methods of composing one's own or some other hospital's team. I would propose that no player should be eligible for Cup ties who had not played in at least half of the hospital's ordinary matches, unless incapacitated by an injury received while playing for his hospital, or that some number as, say eight, should be fixed on as a minimum.

I consider that the present system is not fair to the individual player, as men are played in the bulk of the matches but dropped in cup ties, and that the meeting of scratch teams can hardly be considered the best aim of an Inter-hospital cup, but produces a spirit which makes the game subservient to the cup instead of the cup to the game. RUGBY.

A Voice from the Far West.

Dear Sir,—Please insert this small piece of advice for those foolish students who are thinking of giving up that noble and first profession man can enter, for the sake of Klondyke, and take this "tip" from an old Guy's student,

DON'T.

(Explanation not needed.) There is sufficient, but it would fill the Gazette. My love to the dear old hospital (especially Bright, the private ward).—I remain, an old student, H. CHARLES BATCHELOR.

17, Mayor Street, Montreal, Canada,
March 10th, 1898.

Vacant Appointment.

DEMONSTRATOR OF PHYSIOLOGY.

Applications are invited for the post of Demonstrator of Physiology vacant by the resignation of Dr. Fawcett. The duties of the office will begin on May 1st, 1898, and applications should be forwarded to the Treasurer, Superintendent's Office, not later than Saturday, April 9th. L. E. SHAW, Dean.

March 28th, 1898.

Papers by Guy's Men.

The Hunterian Lectures on the Surgery of the Kidney. By Henry Morris, F.R.C.S.—*British Medical Journal*, 26th March.

Passim.

Please all take notice that the Testimonial to "Good old Betts" subscribed to by many past and present Guy's men, will be presented to him on Wednesday next in the Anatomical Theatre, at three o'clock, when Mr. Lucas has kindly consented to preside, and make the presentation. We want a good crowd to turn up to give our prime old favourite a cheer. All seats free.

Our congratulations to Dr. Fawcett on his appointment to the Medical Registrarship, rendered vacant by the promotion of Dr. Bryant. "He taught us well—he did indeed" at Physiology, as the now famous song hath it, and no doubt the Elements of Medicine will be instilled by him with equal, if not greater success.

An account of the Students' Club General Meeting appears on another page. It will be seen from it, that though the question of smoking in the Dining Hall during the prohibited hours was raised, it was not discussed, as no notice of the motion had been given. However, we are pleased to see that the matter is to be thrashed out at an extraordinary meeting of the Club, to be held at the commencement of next session. Of course there are arguments both for and against smoking in the afternoon in the Dining Hall, but it seems to us that the Residents and those in the College should have the chief voice in the discussion, as their comfort is distinctly threatened, if, as some argue, the room is to be filled with smoke close up to their dinner hour. We hope the new President will take steps to ascertain the views of his colleagues on the subject, and then give them to the meeting to be held in May. The advisability of allowing smoking in the College Library is also likely to be raised, and we hope that the meeting may see its way to sanction this, as at present there is no place in the Hospital where a man may quietly read and enjoy a pipe at the same time, and a good proportion of men habitually smoke when reading hard.

Already several small, though noticeable improvements, have taken place in the catering at the Club. The newly-instituted College Breakfast has jumped into popularity, and the table space at which it can be obtained must obviously soon be added to. The quality of many of the entrées has noticeably improved, and the dessert at dinner is decidedly better. Altogether, we look forward to the future with confidence and satisfaction. No doubt the late Steward had many difficulties to contend with, probably had more work on hand than he could comfortably manage, but now the difficulty is obviated. When the new improvements in the College kitchen are completed, all should go swimmingly, and we believe that men will be found to be quite willing to pay for a good article, far more willing, in fact, than for the "cheap-and-nasty" style of things.

What has become of the "Bicycle Stable" for which we agitated last Autumn, and which we fondly hoped we had caused to be created? At the present time chaos and darkness are not in it, compared with the condition of the region where the proposed stables were to be, and the old nuisance of bicycles in the College lodge, and in the Colonnade, is becoming once more rampant.

All who have had anything to do with Guy's in recent years, will miss, with deep regret, the familiar figure of the Porter (George Burbage), at the Maze Pond entrance to the Hospital, whose sudden and unexpected death on Wednesday morning last, has robbed Guy's of a faithful, courteous, and obliging servant. Our deepest sympathies go with his mourning family on the occasion of their sad bereavement.

Our Consulting Surgeon, Mr. Bryant, was on March 1st elected President of the Royal Medical and Chirurgical Society of London. This Society, founded in 1805 by Dr. Wilham, a Guy's man, has numbered among its presidents the famous names of Bright, Addison, Astley Cooper and Babington. Until Mr. Bryant's election, Sir Astley Cooper was the only Guy's surgeon who had attained the distinction.

Through a regrettable omission the Pass List of Guy's men at the last Final Examination of the Conjoint Board, has not yet appeared in the Gazette. We hope to remedy this, however, in our next, and tender our apologies to the successful candidates.

Harking back to the now well-worn topic of the Final Cup Tie, one thing that struck us very much was the comparative calm that prevailed on the journey to and from the ground at Richmond. Not one blast of the horn; not one

clatter of the watchman's rattle; not one shriek of the siren did we hear from first to last. Even the Waterloo porters noticed the change from the old state of affairs, for one of them remarked to us, "What's the matter; where are the horns; d'yer both think you're going to lose the match?" No doubt the explanation is to be sought in the fact that nowadays the pressure of work is so great that a man finds it impossible to give himself heart and soul up to even an afternoon's total relaxation, but has to hold himself in readiness to return at a moment's notice to that condition of mental strain which is becoming more and more prevalent and even necessary. And more's the pity.

As evidence of the excellent feeling that we rejoice to say exists between Guy's and our sister hospital, St. Thomas's, we quote the following from the current issue of the *St. Thomas's Hospital Gazette*. "The universal feeling at St. Thomas's for some years has been that when we should lose the Cup, it should go to Guy's. We cannot of course be glad to lose it, but having lost it, we rejoice that it has gone to the hospital that has worked so hard for it for many years, and which now wins it by a decisive victory." We thank them for their sentiments.

The second Rugger team brought a highly successful season to a close last Saturday week, when they were defeated by Sutton in the final of the Surrey Cup competition, losing by the narrow margin of a goal to nil. A summary of the season's doings will be found in another column. The honour caps this year have been awarded to R. C. Mullins and A. C. Ransford in the first team, and to C. F. Watson in the second.

Already there are signs of activity in those branches of the Clubs' Union which come particularly into play during the summer session. The Athletic Club has held its general meeting and elected its officers. The Cricket Club meets, we believe, next Friday. The baths will be opened next week, and the Polo Club thus set going. We have plenty to do. The tennis and athletic trophies have to be regained, and the cricket and polo cups retained. We hope there will be no slackness whatever in any of these branches, as good play and good work usually go together.

There appears to have been some hitch to the discovery of the winner of the Arthur Durham Dissecting Prize—that is, judging from the fact that the examination finished some time ago, and no results have reached us yet. So we withhold our congratulations on that event, but extend them most heartily to Louis Stamm, the winner of the Sands Cox Scholarship for Physiology.

The proof of the part of the new museum catalogue relating to the urinary bladder is now on the shelves. This completes the second fasciculus of the second volume. The re-cataloguing of the urinary calculi is now being undertaken, and it is hoped that the second volume of the third edition of the catalogue may be published this year. The remaining sections of this volume will include the prostate, testes, and external genitalia.

Novelties.

MATERIA MEDICA, PHARMACY, etc.

A New Clinical Thermometer

We have received from Messrs. Maw Son & Thompson of Aldersgate Street a specimen of their new patent clinical thermometer. As they rightly point out, the great disadvantage of all forms of clinical thermometers has been the difficulty experienced in shaking down the index after use. This new patent, however, practically does away with the difficulty, as one, or at the most two shakes, suffices to send down the mercury well below the scale. If the makers can guarantee all their thermometers as good in this respect as the one they have sent us, then we most heartily recommend it to all ward-clerks, nurses, and others who have frequent occasions to take temperatures. The sluggish descent of the ordinary mercury column and the necessary half-dozen vigorous shakes are the predisposing and exciting causes respectively of many a fractured thermometer, and anything helping to prevent this, not to mention the saving in time, energy, and language, deserves well of all the profession. With regard to the price of this thermometer, it is only a trifle more expensive than the ordinary brand.

Guy's Hospital Lawn Tennis Club.

At a General Meeting of the Guy's Hospital Lawn Tennis Club, held on Friday, March 25th at 4 p.m., in the Surgical Class Room, Dr. Washbourn in the chair. P. S. Mandy was elected Captain to succeed E. W. S. Rowland (resigned). H. K. Lacey to succeed P. S. Mandy as Hon. Sec.

Exophthalmic Goitre.

A paper read before the Physical Society on Feb. 5th, by Mr. Albert H. B. Kirkman.

(Concluded.)

The number of patients who succumb from the effects of exophthalmic goître is estimated differently by different authors, but I think we shall be somewhere near the mark if we say that about 25 per cent. of all cases die from the disease itself.

The symptoms immediately preceding death are many and various, so I think we shall do well to relate those which are found in our own Clinical Reports during the past twenty-five years—

Case 1. Died under ether having only inhaled three drachms.
2. Became delirious and refused food.
3. Died with violent choreic movements and heart failure; was jaundiced at death.
4. Became extremely restless, tossing about in bed. Delirium and coma.
5. Extreme restlessness, was greatly emaciated. Diarrhœa and high temperature (105°).
6 & 7. Death sudden and unexpected.
8. Heart action became very irregular and violent, breathing hurried, coma and death.
9. Persistent diarrhœa and vomiting, some symptoms of broncho-pneumonia.
10. Died after thyroidectomy from shock.
11. Hæmoptysis and diarrhœa.
12. Pneumonia, vomiting and collapse. This case was complicated with diabetes.
13. Died with pyrexia (temperature 105°). Râles over chest.
14 & 15. Persistent diarrhœa, rigors, high temperature. Died from exhaustion.

Let us now come to the changes in the body found post-mortem.

The heart is often hypertrophied, but in what proportion of cases is a subject of dispute.

Dr. Aran insisted upon the fact that it was enlarged in every case, but Trousseau did not agree with him. Marked dilatation of one of the ventricles (more especially the right) has been noticed on several occasions, but this is apparently quite the exception.

Refering to our own post-mortem records, in twelve cases in which the weight of the heart was there recorded, the results were 8, 7, 18, 11, 9, 13, 10, 14, 8½, 10, 8½, and 11 ounces respectively. Taking the average weight of a woman's heart at 9 ounces (Grey) seven of these were enlarged, one normal in weight, and four subnormal. In one case the heart was said to be "greatly hypertrophied and dilated," in one "left ventricle slightly dilated," in one "right ventricle and auricle and the left auricle much dilated and hypertrophied, the left ventricle being normal," and in another "both ventricles decidedly hypertrophied."

In some cases there is found to be definite valvular disease, and atheroma of the aorta and big vessels in common.

In two of our cases there was some pericarditis, in one of which fluid was found in the pericardium.

The kidneys have occasionally been found to be tough, and, in a few cases, have been described as typical "heart" kidneys. In two patients who died in our hospital small hæmorrhages were found in the cortex, and a cloudy swelling has sometimes been noticed.

In only four cases recorded in our P.-M. reports is any mention made as to the condition of the spleen, but in these it is stated to be tough; in all it was about normal in size.

The liver is generally normal; in one of our cases it was "very fatty," and in two others was "cirrhotic."

The lungs, owing to common forms of death being due to pulmonary diseases, are often found affected, thus they may be in a condition of œdema, red or grey hepatization; ecchymoses are fairly common, and were noticed in two out of fifteen patients.

The condition of the alimentary canal is of great interest. It was found that in almost every case in which the stomach and intestines were carefully examined that some form of inflammation or other abnormal condition was present. This is a fact laid great stress upon by Dr. Hale White and Thomson (of New York). In twelve consecutive autopsies on patients dying from Graves' disease at Guy's Hospital the following were the conditions found (in the words of the reports):—

1. Alimentary canal normal.
2. Stomach and intestines much congested.
3. Intestines much congested throughout; solitary follicles and Peyer's patches well marked.
4. Enlargement of solitary glands.
5. Solitary follicles prominent, extensive ecchymoses throughout colon and rectum, with general collitis, but no ulceration.
6. Not examined.
7. Peyer's patches and solitary follicles well marked.
8. Ecchymoses throughout; solitary follicles and Peyer's patches swollen.
9. Injection throughout small and large intestines.
10. Catarrhal gastritis and enteritis.
11. No mention made of condition.
12. Mucous membrane of stomach injected in places.

It will be seen that in only one out of the ten cases which were examined was the alimentary canal stated to be normal.

Many and varied are the conditions which have been found in the brain: in fact, so many pathological changes have been described that it seems ridiculous to attempt to draw any conclusion as to the nature of the disease from their appearances; but yet we must admit, that to find such marked changes in the medulla and surrounding parts as those observed by Dr. Hale White in a patient who died in the hospital in 1888 would be enough to lead the most conscientious amongst us to

invent a theory to adapt itself to the case. Briefly, what he found was a number of small recent hæmorrhages immediately under the posterior surface of the medulla, extending from the middle line as far out as the restiform bodies; these hæmorrhages slightly implicated the sixth nerve nucleus. It was at the level of the posterior superficial part of the recticular formation that the hæmorrhages were most marked, but they existed in all sections up to the lower part of the Aqueduct of Silvius.

Dr. Hale White's explanation of his case was that the exophthalmic goître was due to changes in certain parts of the floor of the fourth ventricle; which ordinarily escape detection because they are so fine. This theory is supported by experiments of Filchne, who cut the upper and inner part of the restiform bodies on both sides in young rabbits. This generally gave rise to one or two of the cardinal symptoms of exophthalmic goître, the most frequent of which was palpitation of the heart, next exophthalmos. Again, in support of this theory, Mendel (Deutsche Med. Woch., Nov. 5th, 1892) records a case of exophthalmic goître at the autopsy, of which the left restiform body was found atrophied, and under the microscope there was a deficiency of fibres; there was also distinct atrophy of the solitary bundle on the right side of the medulla, also with deficiency of fibres. Professor Granger Stewart and G. A. Gibson (B. M. J., 1893, Vol. I., p. 676) found in one case, hæmorrhage into the fourth ventricle, and in another, a small suppurating cyst on the lower aspect of the pons varolii. These also tend to support Dr. Hale White's theory.

Other changes in the brain which have been found, are:—1. Fibrous change in the vermiform process of the cerebellum with the adjacent surfaces of the optic thalmus, softened, and in parts sclerosed, especially marked sclerosis in the floor of the fourth ventricle, this extended deeply, involving the gracilis column, and also the nuclei of the cuneate bodies and the tenth pair of nerves, there was occasional hæmorrhages into the medulla (Dr. Arthur Foxwell, B. M. J., 1896, Vol. I., p. 144). 2. Dr. Bryant found in a patient who died in the hospital in October, 1896, thrombosis of branches of the middle cerebral artery, and some right cerebral softening.

Hirsch and Prael recorded cases which terminated fatally from meningeal hæmorrhage, and Trousseau, in his clinical lectures, mentioned an instance in which hæmorrhage into the lateral hemisphere caused death, and since this case other similar ones have been recorded.

Much has been written by many observers on the minute structure of the cervical sympathetic nerves and ganglia in Graves' Disease. Amongst the different changes which have been described are hyperæmia, atrophy of the ganglion cells, pigmentation of the cells, crowding of leucocytes between the cells, small hæmorrhages into the ganglia, etc.

Giovanni records that hyperæmia was present in ten definite diseases, and Dr. Hale White found pigmentation of the cells in no less than twelve different diseases. Taking these results into consideration, and remembering the majority of cases of exophthalmic goître absolutely no change can be found in the sympathetic nerves or ganglia, I think we may justly come to the conclusion that the origin of the disease is not there.

The persistence and enlargement of the thymus gland has been the subject of great interest during the past few years. It is found to be present in the great majority of cases whether they are acute or of many years' standing. In 18 autopsies on patients dying from exophthalmic goître in the hospital during the past 27 years, 10 are recorded to be "enlarged" or "persistent," 1 to be "not enlarged." Reference to the glands in the other seven no mention is made. I think there is no doubt that in the others, if the glands had specially been looked for, it would have been found persistent in some, at any rate. If it be not carefully hunted for it is very easy for it to escape notice. In one case of Dr. Foxwell's, thymus enlargement was diagnosed during life. It is generally found as a flat pale apron of glandular substance reaching from a little way below the lower end of the thymoid and extending down into the anterior mediastinum, often some little distance over the parietal layer of the pericardium to which it is often firmly adherent. Its length is frequently about three or four inches and its thickness from a quarter to three-quarters of an inch. It seems that the thymus is not only persistent but enlarged, as it is often found three or four inches long and weighing from two to two-and-a-half ounces; whilst the normal length of a child's thymus is about two inches and its weight a quarter to one ounce. It is covered by a thick coat of fibrous substance which is easily detachable.

On microscopical section, and I am showing specimens from two glands under the microscopes this evening, little change is to be observed from that of the norma thymus taken from a young child. Edmunds says that the concentric corpuscles of Hassall (which are composed of a central mass, consisting of one or more granular cells, and of a capsule which is formed of epitheliod cells) do not seem so readily to undergo degeneration into a structureless and opaque mass, but persisting, grow larger, and then, losing all nuclei, consist only of a nob of fibres; but I cannot say that I have observed these changes in three or four glands I have examined. Hektoen mentions a gland examined by him in which not a single Hassall's corpuscle could be seen.

The persistence and enlargement of the thymus in Graves' disease has been the subject of many hypotheses, but they all fail largely to explain its presence. The most reasonable suggestion was that advanced first, I believe, by David Owen, that the thymus has an inhibitory action over waste, as evidenced by the fact that it is present in growing children, and also in hibernating animals, undergoing enlargement when hibernation commences; and if we believe in the thyroid hypersecretion theory and observe that a large number of the

patients with exophthalmic goître waste markedly, the explanation that the thymus enlarges and overcomes the deleterious effects of the thyroid secretion will appeal to us all.

Characteristic changes in the thyroid gland are not only always present, but I think I am right in saying they are the only post-mortem evidence of the disease that can always be found. About the naked-eye appearances there is not much to be said, except that the thyroid is almost always enlarged; in only one case out of seventeen in our post-mortem records is it stated to be of normal size. The average size of each lobe is between 3 and 4 inches long and about 1¼ inches in breadth, and it weighs between 2 and 3 ounces (normal gland, each lobe 1 to 2 inches long and weight about 1½ ounces). The right lobe, as in the normal gland, is generally the larger. The gland in exceptional cases may reach a very great size, and in one case recorded it weighed one pound, and caused death through pressure on the trachea.

The thyroid arteries are generally enlarged and tortuous, and there is excessive vascularity of the connective tissue around the gland, though this is disputed by some.

Having been able to secure sections of thyroid glands obtained from eight patients who died from exophthalmic goître (six of which came from our own post-mortem room) and of one removed by operation, I propose to describe the microscopical changes which I have found to be present in them, although I may say, to commence with, that they present the same appearance in almost every particular as those described by Edmunds, Greenfield, and others.

Specimen 1.—The normal cubical epithelium lining the vesicles is replaced almost everywhere by tall columnar epithelial cells, and the cells are in places greatly enlarged. Papillomatous ingrowths are to be seen in the vesicles; a large number of aggregations of small round ("embryonic") cells are situated between them. Many of these small cells have wandered into the centre of the acini, and in places they almost fill the entire cavity. At the end of one papillary process can be seen a number of these cells escaping into the vesicle through the columnar epithelium; a large number of incipient vesicles between the larger ones. There is a considerable quantity of fibrous tissue in this specimen.

Specimen 2. Distinctly vascular — a tremendous number of small newly-formed acini. Papillary projection and folding of vesicular walls. A little columnar epithelium in places. Colloid absent. Specimens made up chiefly of an aggregation of small cells and newly-formed acini.

Specimen 3.—Appearance like that of 1, but not quite so fibrous. No colloid; columnar epithelium present.

Specimen 4.—Appearance like 1, but not such marked budding. Vesicles more circular—fairly vascular.

Specimen 5.—A good deal of colloid; presents more the appearance of a normal gland, but that columnar epithelium is present and papillary projections are found in some places.

Specimen 6.—Same appearance as 1, except that there is a good deal of faintly-staining colloid present and not so much fibrous tissue.

Specimen 7.—Much the appearance of 1, but in places the vesicles seem prolonged into tubular duct-like spaces (as described by Greenfield). Some excellent columnar epithelium—not fibrous. No colloid present.

Specimen 8.—Presents all the typical appearances. No colloid.

Specimen 9.—Consists of an enormous number of small vesicles (containing no colloid), and aggregations of small round cells between the vesicles; in only one place can folding-in of the wall of an acinum be observed, and I have failed to find any columnar epithelium.

It will be observed that in all the specimens, with one exception, the appearances represent in a smaller or larger degree the peculiarities recorded by Edmunds (in the Pathological Transactions during the last two or three years) as seen in a portion of a dog's thyroid, which had hypertrophied after the removal of the larger part. Greenfield likens the appearance of the gland (and an excellent simile it is) to what is seen in the mammary gland during its increased activity in lactation.

Let us come now to one or two more theories as to the nature of the disease.

That which seems to me as the most feasible is that the symptoms of exophthalmic goître are due to a general nerve poisoning, the effects of which fall principally upon the medulla, but I must acknowledge that little or nothing is as yet known as to the nature or the production of the poison so acting. There is much to point to the thyroid gland being the *fons et origo* of the poisonous substance; the following being some of the reasons in support of this hypothesis.

1. Removal of a part or whole of the gland, in the great majority of cases, causes amelioration of the symptoms, and in many cases leads to an absolute cure.

2. The constant presence of goître, or some characteristic change in the thyroid body pointing to a greatly increased activity in its glandular substance.

3. The contrast between exophthalmic goître and myxœdema (including both symptoms and anatomical changes), which latter is generally acknowledged to be due to inactivity of the gland, together with the brilliant success following treatment of myxœdema with thyroid extract.

4. Thyroid gland extract administered internally or injected subcutaneously causes in almost every case a fall in the body weight, and emaciation is one of the well-known symptoms of exophthalmic goître.

5. Thyroid enlargement is stated by many writers to be present from the very first.

6. Glycosura is often found in exophthalmic goître, it may also often appear in patients who are being treated with thyroid gland or other diseases,

7. Rapid death, preceded by all the symptoms of acute exophthalmic goître (except the exophthalmos)

which has often been found to follow lengthy operations on the gland. These symptoms are caused most probably from an excessive amount of thyroid secretion being rapidly absorbed into the system from prolonged handling of the gland.

In opposition to this hypersecretion theory the following are advanced.

1. The contrast between exophthalmic goître and myxœdema only holds good with chronic myxœdema; in the acute form as seen in dogs and sometimes in monkeys, there are tremors, with attacks of dyspnœa resembling those of exophthalmic goître.

2. Two cases have been described by Sollier, one by Zum Basch, and another by Dr. Dempsey, of the existence in the same patient at the same time of exophthalmic goître and myxœdema.

3. Thyroid feeding does not, as a rule, make patients with exophthalmic goître worse.

4. The difficulty of saving dogs deprived of their thyroids.

These arguments are certainly feeble as compared with those in favour of excessive thyroid secretion, and may largely be ignored if we consider that the secretion of the thyroid in exophthalmic goître is probably an abnormal one, for which experimental proofs are required.

Lamke (of Hamburg) is of opinion that the poison originating in the thyroid gland is essentially a muscular one, and he would assign most of its symptoms to the direct effect of the poison on the muscles.

There are two other points which would lead one to the conclusion that the disease is due to some poison circulating in the body, though it does not point to the exact source of origin—firstly, that it resembles in its symtomalogy, chonic intoxication, such as mercurialism, alcoholism, etc., and this resemblance is not diminished, says Martins (Berlin Klinik, May, 1896), by the fact that exophthalmic goître often appears and takes origin from a fright or some other physical disturbance. Like a slight cause determining delirium tremens or plumbism, exophthalmic goître may also date from similar causes in the course of chronic intoxication from the disturbed action of the thyroid gland; and secondly, the eye symptoms may be produced by a chemical poison (cocaine); may not some glandular secretion do the same?

The next, the most reasonable theory seems to be that suggested, first, I believe, by Thomson (New York Med. Jur., March 25th, 1893); namely, that the symptoms are due to a functional derangement of the medulla produced by toxic agents of intestinal origin—and he supports this by saying that he has seen no case in which diarrhœa did not appear sooner or later, and by the favourable results of dietetic treatment.

Pathological Exophthalmic Goître is very sharply marked off, on the one hand, from nervous diseases, having an anatomical basis, and on the other, from functional affections, such as hysteria and neurasthenia. Martins (Berlin Klinik, May, 1896,) believes this congeries of symptoms depends essentially on a functional disturbance of the central nervous system, and he considers that the large number of conflicting theories is due to the cardinal symptoms of the disease being regarded as the disease itself, which, he says, is in reality an affection more or less of every organ and system in the body.

Sattler believes that the origin of the disease is in the medulla, near the source of the vagus, and he points out that probably the lesion is a very slight one, and not always in exactly the same place, for the order in which the symptoms appear is very various, and they are curiously mixed with others.

Regarding treatment, I propose to say very little. In many cases, more especially in the younger neurotic type, there is no doubt that moral hygienic control, and insistence upon the most absolute mental and physical rest, will do very much to help the patient to overcome her ailments and should always be tried, in association perhaps with change of atmosphere, seaside preferably, before a course of medical treatment is commenced. Many drugs are suggested in the different text-books but with the exception of belladonna and digitalis they do not seem to be of much value in treating the disease—Glycerophosphate of Sodium by Allen Starr, Salycilate of Soda by Chibret, Iodide of Potassium by Leutopsky, Extract of Spleen by H. C. Wood, and electricity by Bordier. Cordem and others have all been praised highly, and cures have been attributed to their use. Treatment by thyroid gland extract has been carried out with success by David Owen and Dr. Parker, but Bruns, Prof. S. Cohen, and A. G. Auld found that all the symptoms were aggravated under thyroid treatment. The treatment by means of thymus gland holds out much greater hopes of success. Amongst the advocates for its use are Maude, David Owen, Chas. Todd, Mikulicz, Norman McKie, R. H. Cunningham, Mr. Sutcliffe, Locke, and many others. Against these we must balance the results of Dr. Hector Mackenzie, who found no patient out of twenty treated who benefited in the least.

Operative treatment has been succeeded with excellent results in many cases, but has now almost fallen into disuse, owing to the number of sudden deaths which have immediately followed the operation. The different operations which have been done with benefit to the patients are, partial or total incision of the gland, division of the isthmus, section of the cervical sympathetic and ligature of the thyroid arteries. Allan Starr collected 190 cases of exophthalmic goître in which some operation on the thyroid body was performed; 74 were reported as complete cures, 45 as improved, and 3 in whom no change took place, 23 died immediately after the operation. Freiburg collected 41 cases; partial removal was done in 21, total in 1, and in the remainder, ligature of the thyroid arteries; of all these, 25 cases were cured, and 11 are stated to have improved. He thinks that operative treatment should only be undertaken if the symptoms seriously harass the patient, and that excision of one lobe is the preferable operation.

In conclusion I have to thank Mr. Walter Edmunds for the use of his excellent lantern slides, which I think you will all agree with me, when you have seen them, show the points I have described in the minute anatomy of the thyroid and thymus bodies to perfection.

(Lantern slides then shown, followed by discussion. Microscopes with specimens from nine thymus glands from patients with exophthalmic goître and others of adenomata, carcinoma and sarcoma of thyroid and gland in myxœdema.)

Appointments.

HOUSE APPOINTMENTS.

The following appointments have been made by the House Committee upon the recommendation of the Medical Committee:—

House Physicians.—Messrs. G. K. Levick (Dr. Hale White); A. E. Porter (Dr. Pye-Smith).

Assistant House Physicians.—Messrs. A. J. Cleveland and R. W. Mayston.

House Surgeons.—Messrs. F. S. Batchelor (Mr. Davies-Colley); M. H. Way (Mr. Howse).

Assistant House Surgeons.—Messrs. G. E. Richmond and P. Turner.

Obstetric Residents.—C. R. Hodgson (April); R. T. Fitz-Hugh (May); E. I. Spriggs (June).

MEDICAL SCHOOL APPOINTMENTS.

The following appointments have been recommended by the Medical Council and approved by the House Committee:—

Clinical Assistants.—Messrs. P. W. Moore, A. H. B. Kirkman, E. G. Goddard, H. M. Berncastle, Edward Evans, H. Cardin.

Gynæcological Assistants.—Messrs. W. T. Milton, E. I. Spriggs (April-May); W. Mussellwhite (May-June); S. E. Denyer, F. E. Fremantle (June-July).

Clinical Assistants in the Medical Wards.—Messrs. W. H. M. Telling (Dr. Pye-Smith); A. B. Passmore (Dr. Taylor); E. W. S. Rowland (Dr. Goodhart); K. B. Alexander (Dr. Hale White).

Clinical Assistants in the Surgical Wards.—Messrs. T. M. Walker (Mr. Howse); H. J. Starling (Mr. Davies-Colley); S. A. B. Pennington (Mr. Lucas); F. W. Brook (Mr. Golding-Bird).

Clinical Assistants in the Medical Out-Patients.—Messrs. C. C. Worts (Dr. Pitt); J. E. Powell (Dr. Shaw); M. A. Alabone (Dr. Washbourn).

Dressers in the Eye Wards.—Messrs. L. E. C. Handson, A. H. M. Saward (May 1st) (Mr. Higgens); C. Shepherd, W. H. M. Smith (May 1st) (Mr. Brailey); W. J. S. Harvey, W. S. Richardson (June 16th) (Mr. Higgens); E. S. Hall, F. G. Thomas (June 16th) (Mr. Brailey).

Clerks in the Eye Wards.—Messrs. T. W. S. Browne, V. J. Crawford (1st half); J. E. H. Parsons, S. A. Ruzzak, G. T. Wrench, H. L. Eason, W. R. Cazenove (2nd half).

Dressers in the Throat Department.—Messrs. W. E. Hills, R. Balderston, F. J. Nicholls, H. D. Peile, M. H. Thornely, F. E. Walker.

Clerks in the Throat Department.—Messrs. E. R. Row, H. P. W. Barrow.

Surgeons' Dressers.—Messrs. E. E. Parrett, E. J. Tongue, H. B. Dismorr, C. A. Lower, A. W. Powell, C. B. Sells (Mr. Howse); G. T. Burndrett, E. I. Davis, A. Ayre Smith, H. C. Holden, G. Shorland, J. B. C Brockwell (Mr. Davies-Colley); L. Wilkin, C. H. Brangwin, H. R. H. Denny, C. Edwards, F. O. Stoehr, W. H. Edwards (Mr. Lucas); A. R. McLachlan, J. H. Roberts, G. M. Brown, H. M. Reeve, F. E. Hutchinson, G. N. Meachen (Mr. Golding-Bird).

Assistant Surgeons' Dressers.—Messrs. A. W. Penrose, C. T. Hilton, G. S. Simpson, R. W. B. Hall, H. M. Hardy (Mr. Jacobson); L. C. Martin, J. T. M. McDougall, E. W. Goble, W. Johnson, W. M. Thomas (Mr. Symonds); T. E. Holman, M. A. Alabone, P. H. Ward, F. J. Felix-Jones, E. P. Mitchell (Mr. Lane); C. E. Hicks, B. W. Moss, W. B. Secretan, W. G. Stewart, D. P. Watson (Mr. Dunn).

Medical Ward Clerks.—Messrs. R. M. Barron, C. B. Thomson, J. Atkins, A. E. Cawston, F. R. Featherstone, A. Fraser, H. A. Higgens, T. J. Wright, E. H. Felton, J. F. Northcott, E. Stott, H. S. A. Alder, A. H. Davies, R. C. Mullins, W. H. Brailey, E. T. Jensen, E. Cohen, J. Alison Glover, G. Lewin, E. A. Miller, H. V. Bagshawe, H. B. Carr, J. C. J. DaSilva, P. D. Hunter, A. C. Lewis, T. E. Holmes, J. S. S. Perkins, T. P. Thomas, A. Densham.

Surgical Ward Clerks.—Messrs. T. T. Kelly, H. E. Morris, R. D. Attwood, T. R. Beale-Browne, W. P. Ker, P. T. Manson, E. Shelton-Jones, R. Tilbury, J. L. Whatley, M. D. Wood, E. J. F. Hardenberg, H. Davies-Colley, A. Moon.

Assistant Physicians' Clerks.—Messrs. C. H. Glenn, A. M. Thomas (Dr. Pitt); A. W. Talbot, W. W. Harrison, A. Fraser (Dr. Shaw); H. Braund, A. H. Davies (Dr. Washbourn).

Clerks in the Skin Department.—Messrs. J. E. Powell, F. G. Gibson.

Post-mortem Clerks.—Messrs. A. R. Thomas, H. N. Clarke (April-May); R. H. J. Swan, F. D. Turner, L. H. McGavin (May-June); W. L. Baker, D. J. Munro, A. G. Osborn (June-July).

Obstetric Ward Clerks.—Messrs. E. A. Longhurst, H. C. Sturdy.

Obstetric Out-Patients' Clerks.—Messrs. R. Michell, H. C. Sturdy, W. H. M. Tilling (1st half); J. T. DeCoteau, O. Marriott, R. Balderston, F. Shufflebotham, T. P. Berry (2nd half).

Aural Surgeons' Dressers.—Messrs. H. J. M. Barker, T. P. Berry, J. L. Payne, J. Matthews (May-June).

Dental Surgeons' Dressers.—Messrs. B. Isaac (April-May); F. E. Fremantle (May-June); S. C. Clapham (June-July).

Assistant Surgeons' Clerks.—Messrs. D. L. Morgan, F. D. Turner (Mr. Jacobson); A. Fraser, T. Morgan

(Mr. Symonds); E. G. Andrew, J. E. Powell (Mr. Lane); H. P. W. Barrow, T. H. W. Landon (Mr. Dunn).

Clinical Assistant in the Aural Department—Mr. W. Mussellwhite.

Viva Voce.

(*Continued.*)

MIDWIFERY.

E. How would you measure the external conjugate?

E. On what parts would you place the callipers?

C. said symphysis pubes and first sacral spine.

E. How would you find first sacral spine?

C. suggested that it was just above a line drawn between the sup. post. iliac spines. *E.* did not agree.

E. How much does it measure? What other conjugates are there? How would you measure the internal? How would you measure the diagonal? How much longer is it than the true?

E. Patient comes to you six months' pregnant and on examination you find she has a three inch conjugate. What should you advise?

C. talked about induction of labour at thirty-second week or letting her go to term, and Cæsarian section with the object of sterilising patient.

E. Do you think you would be giving patient much risk by inducing labour?

C. No, I think for the mother it would be the best course.

E. Do you think the child would be endangered?

C. It might live but would very likely do badly.

E. If you had found a two inch conjugate what would you advise?

C. Cæsarian section at term.

E. Rather than abortion at once?

C. Yes, I think the mother would run less risk.

E. What is this?

C. Oldham's perforater.

E. How would you use? In vertex presentation when would you perforate? With aftercoming head when? After perforation what would you do? What are the different conditions produced by the cephalotribe and craniotomy forceps when used as tractors? What would you sieze with craniotomy forceps. Do you know anything about cranioclasm? How is it performed? Is it often done? If you had done it how would you deliver? How would you bring the face down? What forceps would you use? How else could you bring it down? Where would you put the hook? *Bell.*

GYNÆCOLOGY.

E. You are sent for to a patient, aged 55, change of life came at 51. She complains that she has lately had several gushes of blood. How would you investigate?

C. I should ask her if she had any pain.

E. Yes, a good deal about the bottom of the abdomen?

C. Is it worse after patient gets to bed?

E. Yes, she thinks it is?

C. Has she lost flesh lately?

E. No, she thinks not.

C. I should see if she was anæmic.

E. Yes, she is slightly.

E. And now I suppose you would suggest an examination?

C. Yes.

E. On V. E. you find uterus a little larger than normal, quite moveable, the os normal and closed.

C. I should introduce a speculum to see if I could find out whether blood came from uterus.

E. Yes, it does.

C. I should advise patient to have the uterus explored.

E. Yes, how would you proceed?

C. I should put in a sterilised tent.

E. Would you use a sponge or laminaria?

C. A laminaria.

E. Yes. How would you you introduce it.

C. I should give an antiseptic vaginal douche, sterilise my hands and forceps, take tent out of alcohol, put a tampon of gauze in vagina to keep tent in place.

E. How long would you leave tent in?

C. About twelve hours.

E. Yes. I suppose you would put it in at night and take it out the next morning, and then if you found the cervix soft, but could not get your finger in, how would you proceed?

C. I should dilate with Hegar's dilators.

E. Up to what number would you go?

C. About 18.

E. Yes, 18–22, and then you found a small hard mass in the cavity of the body of uterus, what is your diagnosis?

C. Carcinoma of the body of uterus.

E. Yes. How would you treat such a case?

C. I should advise extirpation of uterus.

E. What are the dangers of extirpation through vagina?

C. Shock.

E. Do you think patients often die from shock.

C. No, they generally soon come round.

E. What other. I suppose you have seen this operation?

C. Yes, secondary hæmorrhage.

E. Yes, have you seen a case?

C. Yes.

E. When did it come on?

C. About five days after the clamps were removed.

E. What was clamped?

C. The uterine and ovarian arteries and broad ligaments.

E. What structure may be injured in this operation?

C. The ureters and bladder.

E. What forms of dysmenorrhœa do you know? Is spasmodic common? A girl of 17 comes to you and says

that she has a good deal of pain for about six hours before each period. How would you treat her?

C. suggested Spiritus. Ammon. Aromat and Pot. Brom. and a purge.

E. How much Pot. Brom. would you give her?

C. 15–20 grains.

E. Yes; and later she says she is a little better, but not much. What would you do?

C. suggested Canalis Indica or Belladonna.

E. asked if *C.* had seen Phenazonum or Phenacetin given. He said no.

E. What uterine polypi do you know? What is the size of a mucous polypi? What is its colour? Is it darker or lighter than the os? What is its shape? Is it sessile? How would you treat it?

E. If patient came back in a week or so and said that the hæmorrhage was very little better, what should you think?

C. that there was other polypi.

E. Where would they be? *Bell.*

(*To be continued*).

Guy's Hospital Students' Club.

The March general meeting was held on Monday, March 28th, at 3.30 p.m., in the Anatomical theatre. Dr. Pye-Smith (president) occupied the chair. The following three members of the club, after being duly nominated, were unanimously elected to represent the non-resident members of the club during the ensuing year: Messrs. R. T. Fitz-Hugh, F. G. Cross and F. G. Gibson.

Mr. Lidderdale proposed, and Mr. Handson seconded, a motion to allow smoking in the club dining-room between the hours of four and six. As no notice had been given of this motion to the secretary before the meeting, it was ruled out of order by the chairman. The chairman, however, suggested that fresh notice of it be given to the honorary secretary, and that an extraordinary general meeting be called at the commencement of the summer session. This would give time for the matter to be thoroughly discussed, and so the wishes of the majority of members upon the subject obtained. This having concluded the business of the meeting, the chairman then referred to the changes which had taken place in the club. First, with regard to the catering, the chairman thought members scarcely realized the difficulties that are met with in obtaining a manager for a club such as ours, chiefly owing to the very small sale of alcoholic liquors, and also to the great diminution in numbers of members using the club during the three months' vacation in the year.

The chairman thought the club was to be much congratulated in having been able to retain, largely owing to the kindness of the Treasurer, the services of Miss Moore as stewardess, and he hoped that the older members in particular would use their influence to aid in all ways the club management. He did not ask them to put up with things disagreeable, but he did ask them not to be too censorious, to try and smooth the path for the manageress and officials of the club generally, and not to be *too* particular about trifles.

The chairman then referred to the slight alterations which had been made in the tariff, to the proposed improvements to be made in the management of the college kitchen, also to matters, such as the re-lighting of the reading-room, which it was hoped would add greatly to both the bodily and mental comfort of the members.

A vote of thanks to the chairman having been duly proposed and seconded, and carried with acclamation, the meeting adjourned.

JOHN FAWCETT,
Hon. Sec., Students' Club.

Review.

A Handbook of Therapeutics: Ringer and Sainsbury. Lewis. 16s.

Such a hardy perennial as "Ringer's Therapeutics," which has now run through a baker's dozen of editions, needs little commendation from a reviewer. A new chapter of twenty-four pages has been added on Serum-therapeutics. Under this heading—for reasons which are not quite clear—is included an account of the treatment by glands and their extracts. It is written in a judicial spirit. The author admits there is light on the horizon, but is evidently determined not to mistake a farthing dip for the dawn. This chapter appears to be suffering from undue compression. There is no reference to Dr. Washbourn's book on Antipneumococcin.

A short account is given of the Nauheim treatment of heart disease, which, on the whole, is favourably commented upon. It is pointed out that the treatment in a modified form can be carried on at home, and formulæ are given for the preparation of the baths.

This book undoubtedly remains one of the best on the subject, and it may be especially recommended to those sceptics who look on rest in bed, Nature's healing power, and the patient's faith, as our only therapeutic resources.

Acknowledgments.

The Stethoscope, The Clinical Journal (weekly), The St. Mary's Hospital Gazette, The St. Thomas' Hospital Gazette, The Medical Temperance Review, The Pharmaceutical Journal, The London Hospital Gazette, Treatment, Trewinnot of Guy's, by Mrs. Coulson Kernahan, Magazine of Royal Free Hospital, Transactions of the Bombay Medical and Physical Society, The Middlesex Hospital Journal, The St. George's Hospital Gazette, The Hospital, The Owens College Union Magazine, The Guyoscope, The Dublin Journal of Medical Science.

Sport.

Association Football.

REVIEW OF THE SEASON.

The Association season came to a somewhat premature ending on February 26th, the day following the defeat by St. Thomas's in the semi-final of the Hospital Cup.

Although this year we have nothing to show in the way of cups, it cannot be said that the season has been an unsuccessful one. We have played 24 matches, of which 12 have been won, 9 lost, and 3 drawn; 64 goals have been scored for us, and 54 against.

Among our wins the best have been Newbury 6–0, Cheshunt 2–0, Tunbridge Wells 2–1.

Undoubtedly we should have done very much better, but for a series of unfortunate accidents which has prevented our playing the same team regularly—in fact we have only played our full team on one occasion, namely, against Cheshunt on January 22nd.

It was therefore scarcely to be wondered at that there was want of combination in the team; among the forwards this was especially noticeable, the same line rarely taking the field on two consecutive occasions. Great difficulty was experienced in filling the two vacancies which occurred this season, and changes had to be continually made. H. P. Wiltshire, who played for us after Christmas, strengthened the attack considerably, but just when it appeared that we were likely to get a regular forward line, we lost the services of Humphry, who was hurt in the cup tie against West Croydon, and did not play afterwards.

In the defence things have been almost as bad, for although the backs have played together regularly right through the season, the half-back line has been subject to many alterations, chiefly on account of injuries. McAlpin has been unable to play since early in January, badly injuring his knee in the Hospital Cup-tie against Charing Cross.

Having won the Inter-Hospital Cup in the previous season, we naturally were anxious to retain it during the present, but our misfortune was at its height in this competition, for although we beat Charing Cross by 7–0 in the first round, St. Thomas's beat us in the semi-final by 3–0.

In this match we were without Humphry and McAlpin, while Hughes had to leave the ground three minutes from the start, his knee having been badly hurt. Thus with a weak team and only ten men playing, we were at a tremendous disadvantage, and it is creditable that the score against us was as low as it was.

In the Surrey Senior Cup we were beaten by Woking after a close game by 2–1. Here again luck was against us, both the Woking goals being extremely "flukey" ones, while we were unfortunate in not scoring several times.

In the Surrey Charity Cup, West Croydon beat us by 2–1.

It will be seen that right through the season, and especially in the latter part we have had great difficulties to contend against, and misfortune has never really left us. On the whole, however, taking all our troubles into consideration, we have done by no means so badly as has at times been suggested. There has been more keenness among the men this year, and scratching at the last moment, which was so frequent in former years, has been considerably less.

A team cannot always remain up to cup-winning form, and we must not be discouraged at having to part with the much desired trophy.

L. Humphry who has captained the team during the past season, has proved himself to be very efficient in that capacity. His keenness has been of great help to the team, and we shall miss him badly next year. Until he was hurt he did great work for us in the matches, and the fact that he has scored more goals than any other forward, testifies to his usefulness. This is the fifth year he has played in the Guy's team, in two of which 1894, 1897, he very materially aided us in winning the Cup.

The onerous duties of secretary have this year been very ably performed by R. W. B. Hall, who, in these as well as on the field has been indefatigable.

The following are now out of their year:—L. Humphry, E. A. Longhurst, A. R. Thomas.

A. R. Thomas and H. P. Wiltshire have been recommended for Blues. Honour Caps have this year been awarded to R. W. B. Hall and J. McAlpin.

REPORT OF 2nd XI. Season 1897–8.

The past season has been a very satisfactory one as regards to proportion of matches won, the record being—won 16, lost 5, drawn 4. At the commencement of the season, before the team was settled, we were engaged in the Surrey Junior Cup, and were defeated by Tooting Graveney, after playing a drawn game. The team has greatly improved since this, several alterations taking place. Matthews replaced Smith at back, and after the first few games has played a good defensive game. Turner partnered him after Christmas, and although being brilliant at times, has been very erratic.

Smith was shifted from back into goal, which position he has filled successfully on most occasions.

The halves have perhaps played most consistently throughout the season, Nash was particularly good in the early part of the season. Miles has improved immensely, and always works hard. Tipping replaced Greenfield in the centre after his accident, and has proved an efficient substitute.

It is in the forward rank that the improvement of the team is particularly noticed. Witcomb and Hughes have played regularly on the left, while Camps and Roberts filled the right wing, Lacey replacing Roberts during the last few matches. Ash has been centre-forward in most matches. The combination has been exceptionally good at times, and during the latter half of the season much more vigour was infused into the play.

Roberts is probably the best shot, and has a fair number of goals to his credit. Hughes plays with a great amount of dash, and is smart in front of goal. Both outsides are regular players, and have been most useful.

The best games before the vacation were against St. Mary's and Balham Wanderers, both of which were drawn. During this half by far the best game was against St. Bartholomew's, whom we defeated on their own ground by 2–0.

We were defeated by London Hospital in the Hospital Junior Cup, by five goals to three.

Peall has frequently played forward, and has been very successful in scoring. Card has been very useful, playing either half or forward in the majority of matches.

The team has been much more regular than in previous years, and it is to this that the greater measure of success is due.

A stiffer list of fixtures is being arranged for next season, and it is hoped that still further improvement will take place in the team.

The team was extremely unlucky in losing Greenfield early in January when he broke his collar-bone. His interest in the eleven, however, has in no way suffered by his not playing, and the success of the team this year is almost entirely due to his excellent captaincy.

Rugby Football.

GUY'S v. SUTTON.

SURREY JUNIOR CUP.

Our second fifteen having defeated St. Thomas's second fifteen) and Surbiton in the preliminary rounds, met Sutton in the final for the Surrey Cup, at Wandsworth Common, on March 19th. There were fully 4000 spectators present when Guy's, having won the toss and elected to play down the slope, Motion kicked off for Sutton. The hospital forwards at once rushed down to their opponents' goal-line, and for a time pressed severely. Then some good passing and kicking by the Sutton backs took play to the other end, and on three occasions Morrison appeared to have a chance of scoring, but was always out of his place. After this, play became more even, each side making strenuous efforts to gain an advantage. No score was recorded up to half-time.

In the second half, with the slope in their favour, Sutton attacked continuously, and Creswell at length got over, the try being converted. Shortly after, a heavy fog came over, and the rain which had been up till then of a trifling nature, came down very hard. Then the hospital forwards found their chance, and following a magnificent dribble by Bagshawe, attacked hotly, and for the most part had the best of the game right up to the finish, but failed to score. The game thus ended in a victory for Sutton after an exciting fight for the Cup.

The most noticeable feature on our side was the tackling, which was really first rate. The forwards, though not pushed and occasionally shining in the open, never gave their backs a chance. The halves played an entirely defensive game, both stood up close to the scrums, and if the ball came out tried to find touch. The three-quarters never had a chance of running, but all of them defended splendidly. The above points led us to infer that our men went on the ground funking the Sutton backs, and determined beforehand to play a purely defensive game. Had they ignored the undoubted strength of Sutton behind the scrum, and gone in for attack, we venture to believe they would have proved victorious, instead of having to rest content with a not inglorious defeat. Team :—

GUY'S.—C. T. Hilton (back); F. J. Pierce, C. T. Pye-Smith, G. Shannon, J. H. Wilkes (three-quarter backs); F. E. Walker, F. Jarvis (half-backs); C. F. Watson, A. A. Smith, H. V. Bagshawe, D. P. Watson, R. C. Lawry, K. V. Trubshaw, M. D. Wood, A. H. Wall (forwards).

REVIEW OF THE SEASON.

The present season may be fairly said to have been the most successful for many years, culminating as it has done, with a glorious victory over St. Thomas's, and the return of the much coveted trophy to its original home. Long may it remain !

The prospects at the beginning of the season were decidedly good, as we were strongly recruited in the forward department, and also by the return of Sime to the three-quarter line. The team, however, has shown in and out form, which is somewhat characteristic of Guy's. Nevertheless, we managed to win 16 matches, lost 9, and drew 1, while with St. Thomas's we beat Penarth, but lost to Cardiff and Blackheath after a close fight in the latter game. The points scored by our own team show a total of 210, as against 102 scored by our opponents; whilst the combined teams in their three matches scored 10 points to 25. The most notable successes were over the Scottish, Coventry, R.I.E.C., Croydon, and O.M.T's., while the Cambridge and Leicester matches were quite satisfactory, as defeat was by no means accompanied by disgrace in either game. As the points show, the defence throughout the season has been a notable feature, in six of our defeats the line having been crossed but once; while in the three Cup ties the only scores against us have been from the field. At the same time our attack has been weak, and opportunities have been missed on many occasions, which would have turned the tide of defeat, and on others increased the margin of our victory. The forwards have been an even pack, ably led by Mullins. In the loose at times they have proved themselves brilliant; while in the scrum, shirking has been conspicuous by its absence.

Many changes have of necessity been made at half. Undoubtedly the final selection was the correct one, and it is unfortunate that injury has prevented M. C. Wetherell from assisting his brother in more games during the season. The last named has been invaluable to his side, as the best individual player in the team, which he has captained with remarkable energy and

skill. He has our heartiest congratulations on his successful termination of five years devoted to the interest of football at Guy's. This success is due in no small measure to the keenness with which he has infused the whole team, his careful attention to their training, and generalship on the field. The three-quarter line has also undergone many changes, and all the available talent has been well tried. Individually the men have no lack of pace and tackling powers, but at times have shown a sad want of combination. In Rae and Sime we possess two of the fastest men on the football field. During his stay up north, the latter has developed undoubted capacity for tackling, which has stood the team in good stead in his present position as centre, his proper place certainly being on the wing. Jackson's defence has been of the utmost value to the team. Wilkes has played but seldom, as it was considered that his defence was weak, but in the final he showed no lack in this respect, and indeed played a sound game throughout. At full-back we have a really good player in Ransford, whose tackling and kicking are quite first-class. We sympathize with him for his bad luck in being debarred from playing in the final after rendering such valuable assistance to the Hospital throughout the season. At the last moment this difficult post was pluckily filled by Hilton who had previously played in the centre with some success. A list of the matches and their results is found below.

	Result.	For.			Against.		
		Goals	Tries	Pnts.	Goals	Tries	Pnts.
v. Lennox	Drawn	1	1	8	1	1	8
v. Cambridge	Lost ...	0	0	0	2	0	9
v. Old Leysians ...	Won ...	2	1	13	0	0	0
v. Cardiff	Lost ...	0	0	0	3	1	17
v. Penarth	Won ...	1	2	10	1	0	5
v. Catford Bridge ..	Lost ...	0	1	3	0	2	6
v. Royal Engineers ...	Won ...	3	3	24	0	0	0
v. Croydon	Won ...	1	0	5	0	0	0
v. East Sheen	Won ...	2	2	16	0	0	0
v. Old Merchant Taylors	Won ...	2	1	13	0	0	0
v. Lennox	Lost ...	0	0	0	0	1	3
v. East Sheen	Lost ..	0	0	0	1	0	5
v. Blackheath	Lost ...	0	0	0	0	1	3
v. Coventry	Won ...	1	3	14	0	2	6
v. London Scottish ...	Won ...	1	0	5	0	0	0
v. Old Leysians... ...	Won ...	3	1	18	0	0	0
v. Croydon ..	Lost ...	1	0	5	3	1	18
v. Streatham	Won ...	1	3	14	0	1	3
v. Rosslyn Park ...	Lost ...	0	1	3	1	0	5
v. Catford Bridge ...	Won ...	1	0	5	0	0	0
v. Leicester	Lost ...	0	0	0	2	0	10
v. Kensington	Won ...	3	0	14	0	0	0
v. St. George's Hospital	Won ...	1	1	8	1	0	4
v. H.A.C.	Won ...	2	2	16	0	0	0
v. Middlesex Hospital	Won ...	0	3	9	0	0	0
v. R.I.E.C.	Won ...	0	1	3	0	0	0
v. Richmond	Lost ...	0	0	0	1	1	8
v. Old Merchant Taylors	Lost ...	0	0	0	3	0	13
v. St. Thomas's Hospital	WON	1	3	14	1	0	4

REPORT OF 2ND XV. Season 1897-98.

The second fifteen have had a fairly successful season, with the exception of the first four matches after Christmas, in which we were defeated by the Hampstead Wanderers 20 pts–0, L. and W. Bank 17–3, Sidcup 15–3 and Old Charltonians 10–5. We were also beaten by St. Thomas's 19–6, and L. and W. Bank 6–4. Our largest score was against Kensington which we won by 27–0.

The collapse after Christmas is accounted for by the extremely weak teams we were able to raise, owing to accidents and other causes. With regard to accidents in the second fifteen, no man during the season has been so hurt as to be unable to play the following week.

This year we entered for the Surrey Cup, and were drawn against St. Thomas's, Surbiton and Sutton. The first tie, without a full team, we won by 1 goal and 2 tries (11 pts.), to 1 goal (5 pts.).

In the final v. Sutton, we were beaten by 1 goal to nil.

Summary of matches:—Played 19, won 12, lost 7. Points for, 171; against, 117.

Appointments.

CIVIL.

Benson, H. T., L.R.C.P. Lond., L.S.A., has been re-appointed a District Medical Officer by the Spalding Board of Guardians.

Clowes, Ernest F., L.R.C.P. Lond., M.R.C.S., has been appointed House-Physician to the Royal Hants County Hospital, Winchester.

Jago, Charles Sprague, M.R.C.S., L.S.A., has been appointed Medical Officer of Health by the St. Just Urban District Council.

Joyce, John Hall, B.A., M.B., B.C. Camb., has been appointed District Medical Officer to the No. 2 District of the Ashby-de-la-Zouch Union.

Vawdrey, Geo., L.R.C.P. Edin., M.R.C.S., has been re-appointed Medical Officer of Health by the Farnborough Urban District Council.

MILITARY.

Surgeon-Major Charles Knott, Army Medical Reserve, has resigned his Commission.

Birth.

SWAYNE.—On March 24th, at 8, Leicester Place, Clifton, Bristol, the wife of Walter C. Swayne, M.D. Lond., of a daughter.

Marriage.

DRAKE—SHIELDS-SCHIBILD.—On March 9th, at St. John's, Angell Town, Brixton, Ernest H. Drake, M.R.C.S. Eng., L.R.C.P., of West Kensington, to Louisa, only daughter of the late John Shields-Schibild and Mrs Shields-Schibild, of St. James's Road, Brixton.

Death.

COOLEY.—On December 16th, 1897, at Campbeltown, New South Wales, the wife of Alfred Glover Cooley, M.R.C.S., L.R.C.P. Lond., aged 22.

Ed.—F. E. W.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, Guy's Hospital Gazette, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the Gazette *bound should leave them with the Librarian.*

The annual Subscription to the Gazette *is* 6s. 6d.; *post free,* 7s. 6d.

All financial communications, as well as subscriptions, should be sent to the Financial Editor, Mr. C. H. Wells, Secretary's Office, Guy's Hospital.

The charge for binding in blue, with the Arms of the Hospital in gold, will be One Shilling and Sixpence.

Calendar of Coming Events.

April.

Sat. 23.—Mr. Lucas's take-in; Drs., H. A. Gaitskill and L. Wilkin; Cl., Edward Evans.

Tues. 26.—Cambridge Third M.B. Exam. begins.

Wed. 27.—Mr. Golding-Bird's take-in; Drs., R. H. J. Swan and F. D. Turner; Cl., H. M. Berncastle.

May.

Mon. 2.—Summer Session begins. Dr. Savage's Course on "Insanity" starts 9.30 a.m.
Final M.B. Lond. Exam. begins.
Reports for Bredin Prize for Clinical Study to be sent to the Dean by this date.

Wed. 4.—Mr. Howse's take-in; Drs., E. E. Parrett and E. J. Tongue; Cl., E. G. Goddard.
9 a.m., Dr. Washbourn's lectures on Bacteriology.
1.30 p.m., Clinical lecture by Dr. Pitt.

Guy's Hospital Gazette,

APRIL 23, 1898.

The Army Medical Staff.

At last the welcome news has been announced that a new warrant is to be given to the Medical Services of the Army.

The Army Medical Staff and the Medical Staff Corps are to be united into a corps, under the title of Army Medical Corps, or if Her Majesty the Queen consents, the title of Royal Medical Corps will be given. The rank of officers will be from colonel down to lieutenant. The powers of command will be limited.

The position of medical officers is now placed on an assured footing in the army, of which they will form an integral portion, and no longer stand in the light of outsiders. Their position will at once be known by the title of their rank.

Let us now hope that many men will compete for the service. With the content that must now ensue, the life therein will be found an extremely happy one, and at the next entrance examination we hope to see the names of many Guy's men among the list of successful competitors.

There seems general satisfaction among army medical officers at the promised reforms, and the Secretary of State for War is to be congratulated on the promised concessions. We do hope though to see a Royal Corps. The immense advances in medicine and surgery of late years surely place the medical profession on an equality with the science of artillery or engineering.

A resumé of the debate in the House of Commons on March 25th last is appended.

On the vote for medical establishments and medicine—

Dr. Farquharson asked for an assurance with regard to the future of the Army Medical Department. At present it was in such an unsatisfactory condition that a sufficient number of candidates for the vacancies could never be obtained.

Mr. Powell Williams said that the Secretary of State desired nothing more than that there should be a complete understanding between the War Office and the medical profession. The chief claims of army medical men were for a simple title representing rank in the army or in a corps, and that the medical branch of the service should be united into one corps. Whether that corps should be a "Royal" one or not was for Her Majesty to decide. The Secretary of State was quite willing to abolish the compound title, and in future simple titles according to rank would be used in a distinct branch of the service to be styled the Army Medical Corps. He concluded by saying that the department would hail with satisfaction a renewal of the cordial understanding with the medical profession which formerly existed.

Sir Wm. Priestly went into details as to the number of vacancies and the candidates for them, and said that none of the best men of the medical profession now entered the army owing to the want of substantive rank, and the unfair treatment they were likely to receive at the hands of combatant officers, and he argued that the smooth working of the new arrangement must depend in great measure on the wisdom and tact of the commanding officers.

Dr. Farquharson thanked the Secretary of State for having withstood the obstructive tactics of the military advisers of the War Office, who up till now had prevented the concession to the army medical officers.

Captain Norton urged the reduction from seven to five years of the term of office of the Director-General of the Army Medical Department, as the chief prize of the department was so rarely vacant that promotion was rendered very slow.

Colonel Blundell believed that the relations between the medical and combatant officers would never be satisfactory until every medical officer was attached to a particular regiment.

Captain Sinclair was of like opinion. He believed that the inducements offered to the medical profession to enter the Army Medical Service were not sufficient.

Mr. Brodrick said the Government had no reason but to be pleased at the reception of the new proposals. The great objection to the proposal for the restoration of the medical officer to the regiment was the expense, as sixty more officers would be needed. The suggestion *re* the Director-General he would be pleased to bring before Lord Lansdowne.

The vote was agreed to.

Angina Pectoris.

TWO CLINICAL LECTURES BY DR. GOODHART.

Lecture I., March 5th, 1898.

Gentlemen,—I am going to talk to you to-day about Angina Pectoris; we all pronounce it Angīna, with a long "i"; why, I'm sure I don't know; no doubt, to such classical scholars as are present, the false quantity will make them squirm and set their teeth on edge, just as a false note will affect those whose musical ears have been highly trained. There appears to be really little reason for our making such a mistake; of course it should be pronounced Angĭna. It is difficult to say how such a mistake should have arisen, but it is quite a question whether it would be worth while to try and change the pronunciation. Well, I will begin by reading you a report of such a case:—

A man, aged 66. Admitted for shortness of breath.

Personal history.—Patient has been a watchmaker all his life. The work does not necessitate much exertion. Without wishing to criticise this excellent report by Mr. Philip Turner, I think we may call that a bit of "Gladstonese," put in to lengthen the report. At the same time, allow me to remark, that heart disease is not necessarily preceded by an active life. That heart disease is often associated with strain and violent athletic exercise, is largely true, but we must remember that the heart is a muscle, and like the other muscles of the body, is apt to fail when the latter is out of health. I have lately seen a striking instance of this: a man, who lived in England, having always led a healthy life, strong and in the habit of taking plenty of exercise, received what clergymen, when they change a poor living for a rich one, would term a "call"; in other words, he saw a better opening in Australia. While out there he had to work harder, and got no exercise, being kept all day at his desk, doing anxious work; and, as the result, he came back in two or three years a complete wreck, with dilatation of the heart; he had been leading an unhealthy life in the colonies; his muscles got flabby, and so, I believe, did his heart, and thus he came home in this "parlous" condition. The man we are talking of now has spent all his life as a watchmaker, which is a sedentary occupation. For the past ten years he has lived in London; formerly he lived in Liverpool. He is a temperate man. That is an important point; especially as when I first saw him I thought his nose looked distinctly bibulous; it had a reddish, "port-winey" sort of look, as if the man was well accustomed to his grog at night.

Previous history.—For many years past patient has suffered from cough, which has been much worse in the winter, though occasionally it gets very bad even in the summer. Seven years ago he was laid up in bed with it for some time. There is a good deal of expectoration, especially in the morning. About five or six years ago he brought up some blood while coughing, but says he was told that it came from the back of his throat. Again, I don't wish to criticise Mr. Turner's report, but patients are always told that when they spit blood. Possibly blood does sometimes come from there. If you are an enthusiastic specialist in laryngoscopy, you may discover mucous veins in the pharynx in such a case; but unfortunately they *don't* bleed. I can

scarcely recall a single case where I have known such a thing happen; hæmoptysis, which is not from the lungs, is very rare; the fact that you cannot find anything wrong with the lungs counts for nothing, it is probably due to the congested condition in early disease. One always tries to hope for the best, so you tell the patient that the blood may possibly come from the throat, but we as doctors know that it very seldom does. It certainly comes from the lungs in this case, for he has been spitting up blood since he has been in. Patient has never before had any attack anything like so bad as the present one. He is often short of breath, especially when going up stairs—you will see the importance of this point presently—but his breath has never been so bad as to prevent him getting about. He has never had any œdema of the feet and legs. The appetite is good and bowels regular. Patient sometimes has to pass urine frequently, but does not have to get up during the night. He has not had rheumatic fever but gives a history of rheumatics some years ago, but was not laid up.

Present illness. — For some time past he has suffered from cough and shortness of breath, but was till the afternoon in his usual condition. While hurrying upstairs at a railway station to catch a train, he had a sudden attack of breathlessness. He was unable to draw his breath, had a tight sensation across his chest and felt quite prostrate. He was unable to move and had to sit on a chair. His forehead was covered with a cold sweat. During the attack he had no particular pain. After a short rest he felt better and proceeded with his journey, but while getting out of the train (*i.e.*, after very slight exertion) he had a second attack similar to, but if anything rather worse than the first. During this he almost lost consciousness, but again did not have any particular pain. He scarcely remembers being brought up to the hospital.

Condition on admission.—Temperature 97°; pulse, 128; respiration, 40. When seen in the front surgery patient was somewhat cyanosed, his respiration rapid, his pulse feeble and small, and the forehead covered with sweat. The pulse was irregular, and patient obviously in a collapsed condition. He complained of no pain. He was at once sent into the ward and after an injection of digitalis and strychnine soon became much more comfortable. Chest is emphysematous. It is barrel shaped, being very deep antero-posteriorly. The epigastric angle is very wide, greater than a right angle. The chest does not expand well, but both sides move equally. The chest is everywhere resonant. The cardiac dulness is diminished, but there is relative dulness over the præcordial area. In passing, let me make some remarks on the fallacy of detecting the size of the heart by percussion; in my opinion, one of the least valuable signs of cardiac disease is the præcordial dulness. You have most of you heard of what is supposed to be a very delicate method of percussion called auscultatory percussion. When you go out into practice you will find that the Schott treatment of heart disease—baths and a system of exercise against resistance, and the results of which are ascertained from day to day by this auscultatory percussion—is exciting a good deal of attention. You listen with a stethoscope whilst taps are made in various directions, and it generally happens that the first time the patient is examined, the heart is found to extend round into the axilla; the next day it is an inch less, and so on till at the end of the course of treatment, the heart has resumed its natural shape.

I think the results obtained by the method are quite unreliable. But now is your opportunity, percuss out every heart you can, and note the result, and if the patient should be so unfortunate as to die, find out in the post-mortem room to what extent the actual condition corresponds with that which you made out by percussion during life. My own experience is that there are so many things in the way that you can't tell the size of the heart by this method: a very large heart in a man may be tucked away under the lung and often not noticed by anyone till the post-mortem. By far the best evidence as to the size of the heart is afforded by the position of the impulse; percussion is a very good thing in its way, but its value has been outrageously exaggerated It is quite a serious matter; people will often come and say, "See what this new treatment has done for me, my heart was right out here, and now I am well." The probability is that the patient had nothing the matter with his heart.

The vesicular murmur is diminished, but normal. There is no bronchial breathing. On the left side rhonchi and occasional mucous râles are heard, both anteriorly and posteriorly. On the right side râles and expiratory rhonchi are heard down to the level of the third rib, and râles below the eighth rib posteriorly. There is impaired entry of air at the left base behind.

I have read this report through to point out to you the condition in which he came before us. It appeared to be simply a case of bronchitis and

emphysema, and his breathlessness would be explained by such a condition. Now, in oldish bronchitics it occasionally happens that on a cold or foggy day, a sudden exertion will cause such difficulty of breathing that the patient soon becomes partially unconscious, and is soon seen to be in a desperate condition. I can remember one such case of sudden death in an old man which occurred on London Bridge, and I dare say I could call to mind several more; these people live always in a kind of asthmatic condition, the ribs and cartilages are stiff, and the chest won't expand to let in any more air, so that on exertion there comes a block, the blood becomes non-oxygenated, the right heart dilates, and the patient may speedily die.

Circulatory System.—Impulse in fifth space, one inch internal to nipple. There is no absolute cardiac dulness, but the resonance over the præcordial area is diminished. There is no dulness to the right of the sternum. This is inserted, I presume, to show the absence of dilatation of the right side. That is a belief I am fond of knocking on the head; you certainly do not get dulness to the right of the sternum always with right sided dilatation; the truth seems to be that the heart is more or less hung up by the great vessels, and the usual consequence of dilatation of the right side is to push the left ventricle over to the left. This is especially important in mitral constriction, you often think the patient has mitral regurgitation, and you can't think why the patient does not get better under your treatment, whereas the real condition is one of extreme dilatation of the right side, and what you take for a murmur of mitral regurgitation is really one of tricuspid regurgitation. You hear no bruit of mitral stenosis, but then the left ventricle is tucked right away under the lung and you can't get at it.

At the apex and in the tricuspid area, the first sound is not quite normal, it is not so loud or so sharply defined as it should be, but there is no bruit. I didn't myself make much wrong with the first sound. The second sound is louder and more ringing than normal, at the base the second sound is not normal, it is louder and more ringing but there is no definite bruit. It was this loud ringing character of the second sound that made me look carefully at the history again, and then diagnose angina pectoris. I don't know that I can rightly say that such a second sound always means mischief; but on hearing such a sound, you would examine for Bright's disease—the urine and the arteries—to see if the tension was high; sometimes it may lead to the detection of Bright's disease but not often; more generally in such a case your attention is attracted by an alteration in the character of the first sound; it becomes long, labouring, almost double sometimes. Another condition you would examine for would be thickening or dilatation about the first part of the aorta; sometimes aneurysm. The reason of the character of the sound in this case would be, I take it, that when the aorta is dilated, there is an undue strain on the three cusps of the aortic valves and this prevents them coming together into their natural position of absolute apposition and thus acting as dampers to each other, the valves not being in such close contact favouring the existence of vibrations and thus is produced a ringing sound. Another cause of such a sound is seen in the rigid valves of old people.

A few days ago I saw a case which showed very excellently the value of observing the character of the second sound. The patient was a perfectly healthy man, always able to do his work, but he was a bit nervous, and thus was given to consulting the doctor, so that I have had him under observation for the last three or four years. Now, I have always been a little anxious about him because of this ringing character of his second sound, and three or four days ago he came to me with definite signs of aortic regurgitation. This case certainly indicates the fact that an abnormal second sound may precede definite mischief in the aortic area. In addition, I may say that, in this case, Mr. Turner pointed out to me some days after the man's admission the presence of slight aortic regurgitation, as indicated by a slight murmur, which certainly was not present when we first saw the patient. I therefore infer that the base of his aorta is unhealthy, and that this is the cause of his angina pectoris. There is one other noticeable feature about the case, and that is his spitting up a little blood—just enough to streak the sputa. The expectoration is thick, and contains pus; just what you would expect in chronic bronchitis. I will say something more of this condition of hæmoptysis by-and-bye. It is not uncommon in angina, and is often of bad significance; it seems to indicate a sudden and acute disturbance in the chest, and is likely to occur in fatal cases. It does not appear to be so in this case, because the patient is better and has had no attacks since his admission.

Most people say that angina is by no means common in hospitals. In its typical condition, as in the case I am about to read to you, it certainly is not, but in the *varieties* which I will detail to you, you will find it common enough.

I am now going to read you a celebrated case, in fact, the classical case of angina pectoris; it is that of the great Dr. Arnold, who died in his first attack. It is to be found in Dr. Latham's works on "Diseases of the Heart" (Latham's Works, Vol. I. Diseases of the Heart. New Sydenham Society, 1876.) It is the account of the doctor who attended him, and who carefully recorded the case.

"Dr. Arnold was within a day of completing his forty-seventh year. Up to a very few hours before his death both body and mind seemed equally to give proof and promise of health. He still took his accustomed pleasure and refreshment in strenuous exercise. His thoughts were still busily employed upon the highest subjects, conceiving and composing with wonderful ease, rapidity and power. He retired to rest at midnight on the 11th of June, 1842, feeling and believing himself to be in perfect health. At a quarter before seven the next morning his medical attendant was called. What had previously occurred and what followed, I will give in the words of Dr. Bucknill, who was with him during the short remaining period of his existence:—

On my entering his room, he said that he was sorry to disturb me so soon, and that he had not sent for me before, thinking that it would go off. He added, "I have had very severe pain in the chest since five o'clock, at intervals, and it gets worse I think." This pain was seated at the upper part of the chest, towards the left side, and extended down the left arm. He had been rather sick—a point of rather bad significance. He then asked me what the pain was. "What is it?" He was now almost free from pain. His pulse I could scarcely feel. The tongue was clean. There was cold perspiration over his face—another very important sign of angina. The feet and legs were cool. The breathing at the time not troubled. I gave him immediately some hot brandy and water, and having ordered a mustard plaster for his chest, till this was ready I applied hot flannels, and had his legs and arms rubbed, and the feet wrapped up in flannels wrung out of hot water and mustard. The pulse became natural, the extremities were warm, and he was free from pain. The mustard plaster was brought and put on. It was not large enough, and I ordered another. The pain then returning, I gave him more brandy and water, and it soon left him. And now he asked me again what the pain was. I told him I believed it was spasm of the heart. He exclaimed "Ah!" I asked him if he had ever fainted in his life. "No, never." If he had at any time difficulty in breathing? "No, never." If any pain in his chest before? "No, never." I then asked him if any of his family had ever had any disease of the chest? "Yes, my father had; he died of it." He inquired if disease of the heart was suddenly fatal? I answered that it was. "Was it a common disease?" I said not very common. "Where do you find it most?" "In large towns, I think." "Why?" "Perhaps from anxiety and eager competition among the higher and intemperance among the lower classes." He was then quiet and free from pain, and I proposed to leave him for a minute or two. He had no pain whatever in my absence. On my return the perspiration was still in drops upon his forehead. The pulse was again feeble, and I gave him more brandy and water, and had the flannels with mustard renewed. An attack of pain was coming on. He said, "I must stretch myself." I took one of his hands and held it until the pain was gone off. I said, "Is it gone?" He answered, "Yes, entirely," adding that he "could scarcely bear it if it were as severe as it had been. He then asked me what was the general cause of this kind of disease? He then said, "Is this likely to return?" I answered that I was afraid it was, but that as the attacks had been less severe and less frequent, I hoped they would soon pass off. He next asked me if the disease was generally fatal. I said generally (for those who knew him were aware that it was impossible not to tell him the exact truth). I then asked him if he had any pain. He said, "none but from the blister; one can bear outward pain, but it is not so easy to bear inward pain." I was now dropping some laudanum into a wine glass, when he inquired what I was going to give him. I told him laudanum, Hoffiman's anodyne, and camphor. And, while I was preparing the mixture and before I had finished, I heard a rattling in the throat and a convulsive struggle. I called out, and on turning to him I supported his head, which was thrown back, on my shoulder. His eyes were fixed and teeth set, and he was insensible. His breathing was very laborious, his chest heaved and there was a severe struggle over the upper part of his body. His pulse was imperceptible, and after deep breathings at a few prolonged intervals all was over." He died in little more than half an hour after I first saw him."

I will just read out the important points found at the post-mortem. The heart was rather

large. The external surface was healthy. It was very flaccid and flat in its appearance. It contained but little blood, and that was fluid. There were no coagula of any kind in it. All the valves were quite healthy, and so was the lining membrane throughout. The orifices of all the great vessels were quite natural. The muscular structure of the heart in every part was remarkably thin, soft and loose in texture. The walls of the right ventricle were especially thin, in some parts not much thicker than the aorta, and very loose and flabby in their texture. Its cavity was large. The walls of the left ventricle, too, were much thinner and softer than natural. And the muscular fibres of the heart generally were pale and brown. The aorta was of a brown-red colour throughout its internal surface, probably from putrefaction. A few slight atheromatous deposits were observed in the descending thoracic aorta. The pulmonary artery was of the same brown-red colour with the aorta. There was but one coronary artery, and considering the size of the heart, it appeared to be of small dimensions. It with some difficulty admitted a small director. It was slit open to the extent of nearly three inches. Its internal surface was red, but healthy with the exception of a slight atheromatous deposit situate about an inch from the orifice of the artery. This, however, did not appear to diminish its cavity. The liver was pale and rather small; the gall-bladder was distended with yellow bile; the spleen was very soft and bloody. The stomach and intestines were distended with air. The kidneys were soft and rather bloody, and their surface presented in some degree the mottled appearance known by the term "Bright's Kidney."

The symptoms as described here are:—*Pain* of a constricting character; it is variously described by different patients. Some say it feels like a ton or so weight pressing on the top of the chest; others call it a grinding pain; others again call it simply dreadful. It must be one of the worst pains that mankind can be subject to, judging from the extreme collapse and the description given by the patients, indeed, they say that if the pain is going on they would much sooner die straight off. Another of its characters is that it is *Paroxysmal*. Then there is the *distribution* over the chest and down one or both arms, the left one for choice; we know that there is a definite anatomical relationship between the cardiac nerves and the nerves of the brachial plexus, that they both are connected with the same part of the spinal cord; as a matter of fact the pain is often found to follow the distribution of the ulnar nerve; one or two cases are recorded where the pain was followed by wasting of this nerve. I have known the pain to be localised to the tip of each elbow. It is said that one practically never sees these cases in a hospital, the fact is that Angina is a disease of very varying intensity, quite uncommon in the form which we saw attacked Dr. Arnold, but very common if we recognize milder varieties.

One may make mistakes even when the symptoms are well-marked. Thus, a man sent for the doctor on account of great pain in his right side; when the doctor arrived, the patient said, "Oh, it's all right, doctor, I'm only suffering from cutlets and mashed potatoes." The doctor, however, saw at once he was in a bad way; he was pulseless and sweating. He continued in a state of collapse all day, and was in the same state when I saw him. I thought he was a bad case of angina, but was not sure. There was not the proper distribution of the pain; it passed round to the back. At the same time he was in an unusually extreme degree of collapse even for the passage of a calculus, so that I concluded the case was one of angina.

There are any number of troubles for which angina may be mistaken; thus, people will call it neuralgia or indigestion after food, with troublesome flatulence, though this really is a part of the disease; you constantly find observant patients tell you that the attacks come on with flatulence; renal colic, again, may be mistaken for flatulence. I have seen the mistake made again and again. Other diagnoses made by the patient will be rheumatism and liver. The attacks may also start by fits of flushing starting from chest and travelling up the neck, where they produce a choking sensation. In all these cases, if you take the pains to unravel the symptoms, you will find that the pain is of a peculiar character, that it comes and goes, and that in a large majority of the cases it is elicited by exertion.

From the Gazette's Special Pathologist.

NOTICES.

H. B., Builth Wells.—Tubercle bacilli are present in the sputum in small number.

E. R. M., Hastings.—No tubercle bacilli could be found in the sputum.

R. H. A., York.—The portion of prostate is extensively infiltrated with a scirrhus carcinoma.

PATHOLOGIST.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Circulatory System.

Stephen	2.	Aortic aneurysm.
	13.	Aortic regurgitation.
	26.	Mitral stenosis and regurgitation.
Philip	3.	Pericarditis.
	34, 17.	Mitral stenosis.
	34.	Tricuspid regurgitation.
Mary	28.	Chlorosis.
	33.	Mitral stenosis.

Nervous System.

Stephen	22.	? Meniére's disease.
Philip	29.	Basal meningitis.
	30.	Chorea.
Mary	32.	Peripheral neuritis.

Alimentary System.

Philip	2.	Hepatic enlargement.
	18.	Hepatic tumor.
Mary	1.	Œsophageal stricture.
	20.	Enlarged spleen. Hæmatemesis.
	26.	Acute tonsillitis.
	27.	Dilated stomach.
	32.	Cirrhosis of liver.

Genito-Urinary System.

Stephen	13.	Albuminuria.
	16.	Acute nephritis.
Philip	13.	Acute tubal nephritis.
Mary	8.	Moveable kidney.
	36.	Acute nephritis.

Respiratory System.

Stephen	6.	Double pneumonia.
	13.	Bronchitis.
	18.	Broncho-pneumonia.
	21.	Phthisis.
	36.	Lobar pneumonia.
Philip	3, 29.	Pleurisy.
	9.	Phthisis.
	12, 39.	Pleuritic effusion.
	25.	Lobar pneumonia.
	30.	Tuberculosis.
	35.	Empyema.
	37.	Chronic pleurisy.
	38. 40.	Hæmoptysis.
Mary	25, 31, 45, 55.	Pneumonia.
	44, 48.	Phthisis.
	51.	Membranous laryngitis.
	53.	Laryngitis.

Miscellaneous.

Stephen	5.	Enterica.
	23.	Pancreatic cyst. Operation. Drained.
	27.	Pernicious anæmia.
	30.	General tuberculosis.
Philip	3.	Rheumatism.
	4, 11.	Diabetes mellitus.
	20, 22.	Psoriasis.
	36.	Scrofulodermia.
Mary	3, 39.	Rheumatism.
	10, 37.	Ovarian cyst.
	23.	Diabetes mellitus.
	29.	Pityriasis rubra.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman	1.	Ankylosed elbow. Tuberculous. Excised.
	9.	Tuberculous knee.
	13.	Orchitis. ? Urethral in origin, following lateral lithotomy.
	14.	Stricture with extravasation.
	16.	Stricture.
	17.	Tuberculous carpus. Amputation through forearm.
Charity	9.	Tuberculous hip. Excised.
	13.	Stenosis after cauterization of rectum for hæmorrhoids. Linear proctotomy.
	15.	Tuberculous hip. Excised.
	16.	Tuberculous hip.
	19.	Sarcoma of tibia.
Astley Cooper	26.	Hæmatemesis after sword swallowing. Discharged.
	29.	Fractured pelvis and ribs. Death.

Cases under Mr. Davies-Colley.

Luke	5.	Irreducible fermoral hernia.
	7.	Talipes equino-varus. Tarsectomy.
	10.	? Syphilitic perichondritis of larynx.
	12.	Hydrocele. Bilateral.
	19.	Irreducible femoral hernia.
Lydia	1.	Carcinoma mammæ. Excised.
	3.	Tuberculous knee.
	3.	Ascites. Laparotomy. Cancerous peritonitis.
	7.	Fractured patella and humerus.
	8.	Strangulated umbilical hernia. Sac gangrenous. Resection of bowel and anostomosis with Murphy's button. Death.
	21.	Recurrent sarcoma of orbit. Excised with eye.
	22.	Strangulated femoral hernia. Kelotomy.
	Crib.	Congenital umbilical hernia. Sac gangrenous.

Cornelius 7. Fractured ribs.
15. Fractured vertex. Hemiplegia. Trephining. ? Cerebral laceration.
16. Fractured rib and scalp wound. Death.
17. Fractured femur.
20. Compound Pott's fracture.

Cases under Mr. Lucas.

Job 1. Flexion after excision of knee.
6. Genu valgum. Osteotomy.
9. Flexion after excision of knee. Osteotomy of femur.
19. Necrosis of femur.
21. Epididymitis. ? Cause.
22. Ununited fracture of tibia. Accident, February, 1897; screwed November, 1897.

Charity 1. Carcinoma mammæ. Excised.
23. Ptosis, strabismus. Rigidity of limbs of one side. ? Cause.

Lydia 10. ? Renal calculus.
11. Cystic breast. Removal of cysts.
14. Tumour of liver. Laparotomy. Syphilitic cirrhosis.

Cases under Mr. Golding-Bird.

Lazarus 6. Tuberculous tarsus.
8. Bronchocele.
10. Symmetrical synovitis of knee, with congenital syphilis.
11. Stricture urethræ.
14. Stricture urethræ.
17. Epithelioma of penis. Total extirpation.
18. Tuberculous shoulder.
21. Chronic mastitis. Removal of indurated mass.
22. Otitis media. Cerebellar abscess. Death.
22. Hæmaturia profuse. Pains in right loin. ? Cause.

Martha 1. Tuberculous hip.
3. Tuberculous ankle.
5. Recurrent melanosis after excision of mole.
5. Strangulated umbilical hernia. Kelotomy.
9. Pott's fracture.
23. Suppurating tuberculous adenitis in axilla. Incised.

Cot A. Tuberculous hip.

Cornelius 10. Fractured femur.
20. Fractured ribs.

Astley Cooper 9. Fractured olecranon. Wired.
10. Fractured femur.
27. Abdominal injuries. Death.

Cases under Mr. Jacobson.

Naaman 20. Epithelioma linguæ. Whitehead's excision.
22. Epithelioma of lip, æt. 8. Excision.

Patience 3. Mammary abscess. Excised.
5. Mammary abscess. ? Tuberculous. Incised.

Cases under Mr. Symonds.

Martha 14. Spina bifida and meningocele. Æt. 5.
15. Rodent ulcer of cheek Excised.

Job 10. Contracting scar at elbow. Plastic operation.

Patience 2. Synovitis of knee. ? Gonorrhœal.

Cases under Mr. Lane.

Job 6. Abdominal pain. Locomotor ataxy. Laparotomy. Peritoneal band divided.

Dorcas 4. Ununited fracture of femur. Upper one-third screwed.
5. Trifacial neuralgia.

Samaritan Stretcher. Subpectoral abscess. ? Cause. Incised.
11. Gumma on buttock.

Cases under Mr. Dunn.

Lazarus 2. Lupus of nose. Excised.

Martha 10. Ovarian cystomata.
11. Colotomy for carcinoma recti.
12. Carcinoma recti. Inguinal colotomy.

"Clinical."

1. Lobar pneumonia.
2. Capillary bronchitis. Bright's disease.
3. Sub-acute tubal nephritis.
5. *Pneumonia (alcoholic).*
6. Mediastinal tumour. Spasmodic attacks of dyspnœa.
7. Abdominal tumour. Dilated stomach.
9. Mitral stenosis and incompetence. Tricuspid incompetence. Adherent pericardium.
10. Lobar pneumonia. Sub-diaphragmatic abscess. Diaphragmatic pleurisy. ? Tuberculous mesenteric glands.
14. Aortic stenosis and incompetence. Angina pectoris.
15. Congenital heart disease. ? Patent ductus arteriosus.
16. Meningitis.
18. Hepatic cyst. ? Hydatid. Operation. Pneumothorax.
20. Ptomaine poisoning. Imbecility.
26. Perforated gastric ulcer. Operation. Recovery.
30. Mitral stenosis and regurgitation. Pulmonary regurgitation.
32. Ascites. Hypertrophic cirrhosis.

Notes from the Medical Wards.

It may interest our readers to have a short review of some of the more instructive cases that have been admitted into the general ward, under the Assistant-Physician, while Dr. Goodhart has been in Clinical. A case that gave rise to considerable discussion was that of a little girl, aged 12, who was admitted for a very large spleen, which had been discovered a few weeks before, when the child first came under medical observation on account of sudden profuse hæmatemesis. All gastric troubles had subsided when the child was admitted; she was very pale, and the splenic tumour, as to the character of which there could be no doubt, occupied nearly the whole of the left side of the abdomen. Leucocythæmia was of course suspected, but as the number of white corpuscles in the blood was if anything diminished, a provisional diagnosis of splenic anæmia was made. Dr. Shaw was not at all disposed to accept this diagnosis, and expressed some doubt as to whether there was sufficient evidence to justify belief in the existence of a definite group of cases deserving this title. He reminded the ward-clerks that this was a title originally used to designate what is now known as splenic leucocythæmia, and that in recent years it had been proposed to remove the name and to restrict it to cases in which severe anæmia was associated with an idiopathic enlargement of the spleen without any leucocytosis. The cases hitherto published in England were hardly conclusive; of the three most fully reported, one was healed by splenectomy with considerable temporary improvement, but died subsequently and was found to have cirrhosis of the liver; a second, reported by Dr. Taylor in the Guy's Hospital Reports, died at home, and was not therefore submitted to the test of a post-mortem examination; and the third, though in every other feature resembling ordinary leucocythæmia, was excluded from this category because the leucocytosis which was found in the wards was not confirmed in the pathological laboratory. Splenic anæmia, at any rate, appears to be so rare and so indefinite a disease, that it was necessary to carefully exclude all other possible conditions before venturing to accept it as a diagnosis. The co-existence in this child of severe hæmatemesis and enlargement of the spleen suggested portal obstruction, and in an older patient a diagnosis of cirrhosis of the liver would probably have been made without much hesitation. The great size of the spleen and the age of the patient, though somewhat against cirrhosis of the liver, would not necessarily exclude it. In favour of this diagnosis was the fact that the liver, though little if at all enlarged, could be felt on deep inspiration and seemed to be rather harder than normal. The ward-clerk made careful enquiries of the parents, but no positive information suggesting alcohol, syphilis, or malaria as a cause could be elicited. While in the ward the child had two further attacks of profuse hæmatemesis, and after each attack a very remarkable diminution in the size of the spleen was noticed, an observation which was thought to strongly confirm the suggestion that the splenic enlargement and the hæmatemesis were both due to engorgement of the collecting radicles of the portal vein. Mr. Fripp being in the ward during one of the attacks of hæmatemesis, the opportunity was taken to discuss the general question of operative interference in hæmatemesis. It was agreed that such procedure would very rarely be justified. The tendency of hæmatemesis to cease spontaneously, or by the aid of drugs, would make the physician shrink from recommending operation until the last moment, when the patient would probably be in too critical a condition to withstand the shock of a laparotomy. The cases in which success could be expected would be those of ulcer of the stomach rather than cirrhosis, since in the latter a localised source of bleeding was rarely found in the post-mortem room. A case was, however, recalled, which provided a preparation now in the museum, showing a minute perforation of a varicose vein of the stomach, from which fatal hæmorrhage occurred in a very early stage of cirrhosis of the liver. The subsequent progress of the little girl has not thrown any further light upon the origin of her condition, except that for a few days there was a good deal of abdominal distension, due perhaps, partly to ascites. The interest in this case was considerably enhanced by the admission into a bed on the opposite side of the ward of another girl, aged 16, with a very large spleen and a somewhat enlarged liver. She, too, was pale, and her blood also showed conclusively that there was no leucocytosis. No history could be obtained of alcohol, syphilis, or ague; the child was not seriously ill, and her stay in the hospital was short. The diagnosis made was cirrhosis of the liver.

For comparison with these doubtful cases was an alcoholic old lady with nodular liver, large spleen, and ascites; the fluid in her peritoneal cavity accumulates so rapidly that paracentesis abdominitis was four times performed in three months. Dr. Shaw took occasion to inveigh against an opinion which seemed to be popular amongst present students that ascites, due to cirrhosis of the liver, was not usually tapped more than once. He believed their view to be due to a transference of cause and effect. It was quite true that in cases in which ascites was many times tapped, a chronic thickening of the peritoneum generally, and over the liver in particular, would be found, but this chronic inflammation and thickening must be looked upon as a *result* and not a *cause* of the ascites. As a contrast to this case of so-called atrophic cirrhosis was another elderly woman of alcoholic habits, with extreme jaundice and large liver, without any enlargement of the spleen and ascites. She sought admission chiefly for the intense itching of the skin which troubled her. This symptom was somewhat relieved by injections of pilocarpine and alkaline baths. The diagnosis made was hypertrophic cirrhosis.

One of the cases illustrated very well the good effects in neurotic conditions of hospital discipline and regimè. A servant girl who had been incapacitated from work on

account of long-continued gastric pain, associated with vomiting after every meal, was admitted into one of the beds in Mary ward. All food by the mouth was immediately withheld, and she was treated with nutrient enemata. As soon as the patient became seriously hungry, small quantities of milk were allowed, it being mentioned in her hearing, but not to her, that if the milk caused vomiting it must immediately be stopped. The same plan was adopted with each increase in diet as it was allowed, with the result that in less than a fortnight the patient was eating and enjoying full diet.

Disciplinary treatment of this sort is almost impossible to carry out except in hospital practice. It was pointed out that neurotic vomiting is generally a bad habit contracted owing to the relief of discomfort afforded by emptying the stomach when dyspeptic pains are present, that it is important to remember that nearly all neuroses have a physical basis, and that moral control should always be combined with active treatment of the slight physical trouble which is the starting point of the neurotic exaggeration.

A typical example of Friedreich's disease in a young woman occupied one of the beds for a short time. The diagnosis of the case presented little difficulty, and the only unusual feature was that it was an isolated case, there being no history of a similar disease in any relatives. Such isolated cases appear to be much commoner than was at one time believed.

Two cases of acute myelitis in men afforded a good opportunity for comparison. The younger man, with a well-marked syphilitic history, was paralysed only as to his lower extremities, and made a satisfactory progressive recovery under antisyphilitic remedies and complete rest in bed. An older and very fat man came in completely paralysed from his neck downwards, using his diaphragm alone in respiration. The onset had been rather vague and gradual, but complete paralysis was established in about fourteen days. Shortly after admission, uncontrollable vomiting came on, and the case ended fatally a week later. As usual, little was to be detected by naked eye examination of the cord itself; there was, however, a good deal of inflammation of the pia mater, though no special clinical indications had been observed suggesting involvement of the meninges.

A man was admitted with his left chest dull to the extreme apex from pleuritic effusion. The high temperature had suggested to the medical man who sent him in that it was probably an empyema. The fluid, however, on aspiration turned out to be serous. After the fluid was withdrawn the base remained dull while the physical signs at the apex gave rise to a good deal of discussion. The percussion note suggested the possibility of pneumothorax having been produced during aspiration, either by wounding the lung, or by its spontaneous rupture on rapid re-expansion. On the other hand, the breath sounds were well heard, and there were numerous râles. The fact that there was a strong tuberculous family history naturally led to the suspicion that there might be some phthisis at this apex. Dr. Shaw warned his ward clerks against giving an opinion as to the presence of phthisis in a lung recently affected by pleuritic effusion. Considerable expectoration, sometimes even blood-stained, and very suspicious physical signs frequently existed after aspiration, but might all disappear with patience. The only satisfactory evidence of phthisis would be the presence of tubercle bacilli in the sputum. None were found in this case, and after some weeks of anxiety, the patient was discharged practically well. It was pointed out that a good many cases of pleuritic effusion did ultimately develope phthisis, a fact which some took to indicate the tuberculous origin of the pleurisy, while others believed that the tubercle in the lung was to be explained by the fact that the damaged organ became a ready site for tuberculous invasion.

Several cases of Bright's disease in all stages and of all varieties were under treatment, the majority being admitted on account of the ordinary well-marked features of the disease. Two men were admitted for urgent dyspnœa, the exact origin of which it was not with certainty determined until the acute attack had subsided, so that the uncomplicated symptoms of the disease could be observed.

One elderly man, with high tension pulse, extreme cyanosis, rapid respiration and heart rate, caused considerable anxiety throughout the whole night after his admission. Venesection, inhalations of oxygen, diffusible stimulants, and injections of digitalis and strychnine, were all resorted to before the house-physician felt that he could safely leave him. Although the attack was very carefully watched, considerable doubt remained as to whether it should properly be considered to be a uræmic manifestation or acute cardiac failure. The attack was ultimately diagnosed as one of renal asthma, it being explained that it was intended by this term to indicate that the exciting cause of the dyspnœa was the circulation in the blood of effete products that were not being properly excreted by the diseased kidneys. Another elderly patient, with chronic interstitial nephritis, was suddenly seized with faintness and breathlessness while crossing London Bridge, and was admitted to the ward after having spent some hours on the floor of the consulting room of a neighbouring practitioner. The attack was practically over before his admission, but a careful consideration of its history led to the conclusion that it was due to acute cardiac failure.

Another serious dyspnœic condition in a woman gave rise to still greater difficulties in elucidating its cause. She had recently been confined in the Guy's Charity, and since her confinement, fourteen days before admission, had had a very rapid and somewhat irregular pulse, thought to be dependent on mitral stenosis. No definite bruit was, however, heard. On admission, she was breathing deeply and rapidly, and was a little cyanosed. Her condition was so urgent at first that it was thought that her removal to the hospital might have detached a clot which had become impacted in one of the branches of the pulmonary artery. The next day she had a little blood-spitting, and her lungs, which had before been

quite free, now exhibited some fine râles in the middle of the left lower lobe. These two additional symptoms seemed to lend weight to the supposition of pulmonary embolism, but her subsequent progress and the fact that the urine is 1010 sp. gr. and contains a little albumen, and that there are some signs of old neuritis in her optic discs. has led Dr Goodhart to make a diagnosis of uræmia.

The Betts' Testimonial.

The clever drawings of Mr. Stanley Cock were the means of drawing a goodly collection of men, considering the time of year, to the Anatomical Theatre on the afternoon of Wednesday, April 6th, when the testimonial to William Betts, subscribed to by many past and present Guy's men, was presented to him by R. Clement Lucas, Esq., F.R.C.S., on behalf of the subscribers. Rounds of hearty applause greeted "old Betts" on taking his seat in the well of the Theatre.

Mr. Lucas in making the presentation said:—Mr. Betts, I have been requested by the subscribers to your Jubilee testimonial to present you with this gold watch and chain, and to express to you some of the feelings that animated them in their desire to commemorate this very remarkable occasion. I could have wished that some one better versed in the appropriate language of such occasions, and more apt in translating feelings into words, should have been requested to undertake the task —someone with the literary ease of a Rosebery, or with the metaphysical resource of a Balfour - but, however gracefully such an one might have interpreted the feelings of the moment, and, however clumsily I may fail in my attempt to do so, I will maintain that no one could be more thoroughly imbued than I am, with an honest and sincere respect—I could almost say affection —for the recipient of this testimonial. There is one excuse perhaps, for my occupying this position to-day, that from the time of my entry at the hospital at the age of 17, up to the present, I have never been entirely separated from the anatomical department with which Mr. Betts holds so close a relation. As to the gift itself, I will only remark that no one with whom I am acquainted would seem to be less in need of being reminded of the exact time, for during the 30 years I have known Mr. Betts, I have not once known him behind time, punctuality being one of his most remarkable characteristics. For the information of those who have not known Mr. Betts so long as I have, I will state that he was born in the shadow of Guy's Hospital in the neighbouring Newcomen Street, then called King Street, and that he afterwards for many years actually lived within the hospital grounds. Born in 1824, he entered the service of the hospital at the age of 23, and has been now for 48 years employed in the museum. He is indeed, the only preparation we have of a perfectly healthy man doing his work at 74, as well as he did 50 years before. He differs, however, from the other specimens around him, inasmuch as he has not been put upon the shelf, and I hope will long enjoy his liberty. During the years he has served the hospital and furnished the diagrams and preparations for lectures, he has been brought into contact with many great men long deceased. Entering soon after Astley Cooper's death, he knew his two nephews Bransby Cooper and Edward Cock; he knew also the great Dr. Addison, Hilton, Hodgkin, Owen Rees, and Sir William Gull. Of the old students scattered abroad and in the provinces he must have known many hundreds, perhaps thousands, and I am convinced that there is not one of these who does not regard him with respect and esteem. There are many ways of gaining distinction in life, but perhaps none is more worthy than for a man honestly, honourably and in good faith to have performed his duties in that state of life which it shall have pleased God to call him, and to have gained the respect and reverence due to a long life of honest labour. Mr. Betts, in handing you this testimonial I convey the wishes of all present, and of many others, that you may long continue your life of usefulness. We only hope the watch will keep as good time as its owner, and that in looking at it you may gain pleasure in being reminded of the respect in which you are held by the past and present students of the hospital.

Mr. Betts in a few, well-chosen words thanked Mr. Lucas, and through him all the friends who had been so kind as to think of his Jubilee, for the very handsome watch and chain. They might rest assured, he said, that he would never (as had been pictorially suggested) part with it.

Mr. Lucas then led three cheers for "old Betts," and these were most heartily given, the meeting then adjourning.

The watch, a demi-hunter, with long gold chain, was inscribed as follows:—Presented to William Betts by Past and Present Guy's men, as a mark of their esteem and appreciation of his 50 years' work at the hospital.

Prize Examinations.

The following awards have been made:—

Golding-Bird Gold Medal and Scholarship in Sanitary Science—To No. 3, Mr. R. W. C. Pierce.

Sands Cox Scholarship in Physiology—To No. 42, Mr. L. E. Stamm; and a Certificate to No. 35, Mr. M. Coplans.

Michael Harris Prize in Anatomy—To No. 43, Mr. C. Tessier; and a Certificate to No. 31, Mr. W. H. Bowen.

Junior Prizes for General Proficiency.—First prize of the value of £20, to No. 42, Mr. L. E. Stamm; Second and Third prizes of the value of £15 and £10 respectively, divided by Nos. 31, Mr. W. H. Bowen, and 43, Mr. C. Tessier; and Certificates to Nos. 37, Mr. H. C. Keates, and 33, Mr. G. T. Collins.

Arthur Durham Prizes for Dissection—(Second and Senior Years).—Prize shared by Messrs. H. Davies-Colley, and C. Tessier; and Certificates to Messrs. H. W.

Brown, H. F. Hatfield and L. E. Stamm. (First Year).—Prize to Mr. R. Willan, and Certificates to Messrs. C. H. Robertson and W. E. J. Tuohy.

Pass List.

The following gentlemen have passed the school examination in Elementary Anatomy:—

C. E. Adams	R. C. Lawry.
K. Anderson.	W. C. Lewis.
A. J. Beadel.	H. W. Morris.
J. Braithwaite.	L. G. Nash.
C. H. Bubb.	A. E. H. Pakes.
W. H. Bush.	S. L. Pallant.
P. P. Cole.	W. G. Parker.
R. T. Collins.	H. T. Palmer.
J. B. Copland.	J. D. Pearson.
E. Couchman.	A. P. Piggot.
C. H. Dawe.	E. H. Paterson.
C. H. Denyer.	C. H. Robertson.
E. Faulks.	G. S. Robertson.
E. G. Goldie.	W. W. Read.
H. M. Goldstein.	D. H. Richards.
J. W. Gromitt.	S. Sheffield.
H. N. Grose.	G. W. Smith.
G. F. Hardy.	T. M. Smith.
P. W. Hamond.	H. L. Shelton.
J. T. Hicks.	F. C. Robinson.
N. N. A. Houghton.	A. H. Turner.
G. F. Humphreys.	A. H. E. Wall.
A. W. Iredell.	H. W. Wallis.
H. S. Jones.	M. C. Wetherell.
W. W. C. Jones.	R. Willan.

Court of Committees.

The Court at its meeting on the 6th inst. sanctioned the following recommendation from the House-Committee:—

GUY'S HOSPITAL CHAPEL—CHURCH COUNCIL.

1. The Council to consist of—
   a. The Clergy, officiating as Chaplains.
   b. The Superintendent.
   c. The Matron.

as ex-officio members, and

   d. Twelve elected members.

2. Meetings to be called only by the Acting Chaplain, and he to take the chair.

3. It shall be the duty of the Acting Chaplain to call a meeting at the requisition of any four members, and at other times as he shall see fit.

4. The twelve elected members to be communicants of the Church of England, and to be chosen, as vacancies occur, by the vote of persons whose names appear on the Easter roll of Communicants belonging to the chapel.

5. Resolutions passed by the Council to be entered in a minute book by one of its members chosen for the purpose, and no resolution to come into operation until this minute book has been submitted for the approval of the House-Committee by the Acting Chaplain.

6. Resolutions shall only affect:—
   a. The Constitution of the Council.
   b. Disposal of offertories.
   c. Decorations and Music.
   d. Hours of service, seating, and other arrangements for the convenience of the congregation.

4a. For the first council, the Chaplain to invite two sisters, two nurses, and two students to join with the ex-officio members in electing the other six. Subsequent vacancies to be filled up as in 4 above.

On the proposition of the Treasurer the Court approved the following:—

RETIREMENT AND PENSION SCHEME.

Applicable to all persons employed by the Hospital, exclusive of the medical, surgical, and female staff, and of the officers and servants paid by the Medical School.

1. Pensions may be granted, subject to the conditions hereinafter mentioned, in accordance with a scale commencing after the tenth year of service with fifteen-seventy-fifths of the salary and emoluments and advancing by one seventy-fifth of the salary and emoluments for each year's service until the expiration of the forty-fifth year, when the maxim of fifty-seventy-fifths (two-thirds) shall be attained.

2. Up to the sixtieth year of his age, no person will be entitled to apply for a pension, unless it shall appear from a medical certificate that he is mentally or physically incapacitated for further duty.

3. On completing the sixtieth year of his age any person shall be at liberty to apply for a retiring pension in accordance with the scale.

4. On completing the sixty-fifth year of his age the service of every person shall terminate; but he may be granted the maximum pension, although he may not have completed forty-five years' service.

5. Pensions shall only be granted for approved service, and during the pleasure of the Court.

6. All persons pensioned before they are sixty years of age shall, until they attain that age, be required to satisfy the Court from time to time that no material change has taken place in the circumstances under which the pensions were granted.

7. The salary and emoluments on which the amount of pension will be calculated, shall be those of which a person may be in receipt at the time of retirement.

8. The Court reserves full liberty to continue in their service any person after he has attained the age of sixty-five, with his concurrence, if such a course be thought desirable for the interest of the Hospital.

The Court further sanctioned the report of the Staff and School Committee summarised in the last number of the Gazette, regarding the appointment of anæsthetists and additional Assistant House-Surgeons.

Passim.

The question of the value of clinical assistants in the medical and surgical wards, and at out-patients was raised by a correspondent in our last issue, who signed himself "One of Them," and it has called forth a spirited reply from a fellow clinical assistant, who has had perhaps a little more experience of the appointment. It seems to us that the whole point of the value of any given clinical assistantship depends on the man holding the appointment. That of Clinical Assistant in the Surgical or Medical wards, held by a really capable man, comprises a sphere of usefulness that is practically unlimited, and should prove profitable, not only to the holder, but to all the members of the firm to which he is attached. Nay more, we can disclose a method by which any clinical assistant can earn the gratitude of every reader of the Gazette as well, but of this we shall speak later.

At present, clinical assistants, as a rule, do not seem to understand the importance of their position. Of course, there are some brilliant exceptions to this, but, in our humble opinion, the possibilities of the appointment have, up to the present time, hardly been realised by the men holding it. The reason that the post has often fallen into discredit is, we believe, that men have been given the appointment who, for some reason or other, could not give their whole time to the work entailed. If it were only realized that the training of the ward clerks is, for the most part, and on some firms entirely in their hands, and that the reputation of anyone entering the wards is usually made or marred by the way he does his early appointments, then the value and importance of the appointment would become apparent. It is a well-known fact that one of the best ways of learning one's self is by trying to teach others, and a clinical assistant has endless opportunities of putting this method into practice. What an excellent chance, too, for research work does the post hold out! Every clinical assistant is a potential Bredin prize winner.

But briefly just to indicate the way in which clinical assistants might be of infinite use to those outside their immediate field of work. As most of our readers know, we have considerable difficulty in getting interesting technical matter to publish in the Gazette, and an amount of clinical material of inestimable value is annually wasted so far as the majority of Guy's men are concerned. In a column like "Hospital News," which purports only to be a list of the interesting cases in the wards, it is quite impossible to indicate the important and remarkable points of exceptional cases, and so most valuable and instructive lessons may be as profoundly buried under commonplace titles, as are the steps of the north surgical staircase under the laundry bundles on Monday mornings. Now this could, to a large extent, be obviated if the clinical assistants would take upon themselves the duty of sending or causing to be sent to the Gazette a brief account of every unusual case that comes under their notice. Some time ago we had printed forms, which used to be given out by the registrars, and on which cases were recorded and sent to us. If we could feel sure that such would again be found useful, we would be only too pleased to provide them. We appeal most earnestly to the newly-appointed clinical assistants to help us to prevent the lamentable waste at present going on, and to furnish their fellow Guy's men with a few crumbs of the great loaf of information of which they themselves can so freely partake.

The Pension Scheme recently agreed upon by the House Committee of the hospital, and of which we publish some details in another column, appears to us to be an excellent one, and the remarkable thing about it is that such a scheme has not been put into operation long ago. It only remains now for the medical school to follow the lead given it by the hospital, and to provide for its servants after a similar manner. Of course, the nurses are not included in the above-mentioned scheme, for the simple reason that they already have their own well-established arrangement known as the Royal National Pension Fund for Nurses, in which, we believe, all Guy's nurses are, *ipso facto*, participators.

We would call the attention of all those cyclists who make a practice of bringing their machines up to the hospital, to the letter in our correspondence columns from the Secretary of the Students' Club, in which he states that the cycle stable is just upon ready. There may be a rush for stalls, so it will be as well to find out about them in time. We have not yet been able to ascertain whether any fee is to be charged, and if so what it is going to be, but no doubt information on that point will soon be forthcoming.

F. O. Stœhr turned out to be the successful writer of the Treasurer's Prize Essay, and his interesting paper on "Infection" was read before the Physical Society at the last meeting of the session. We are authorized to state that G. N. Meachen came in a very good second. The other Physical Society's Prizes were won by R. H. J. Swan, F. D. Turner, and F. Shufflebotham, so that most of the essayists of the season, in fact all but one, received something for his trouble. The winning essay will shortly be published in our columns.

The Choral Society is getting out of leading-strings, and begins now to feel its feet. It will be giving its second annual concert on the evening of May 17th, in the Court Room, when the progress it has made during the last year will be subjected to the severe test of public opinion, and the kindly criticism of its many friends, whom we hope will come as before largely to its aid, both by attending themselves and by making the concert known among their friends. Tickets, price 2/6 each, may be obtained on application to any member of the committee.

The question of smoking in the club rooms has not, we hope, been forgotten by members using them, for it will be quite as well to have had the matter thrashed out before the extraordinary meeting comes off at the beginning of the new session. At present we notice a total disregard for the bye-law forbidding smoking in the dining hall during the daytime. Possibly this is an indication that the majority of members rather favour the proposal made, viz., to smoke after breakfast and during the afternoon.

No doubt many have watched with amusement and interest the terrific fight for public favour that is at present going on between the various cocoa firms. It appears to be a war to the death, and we can hardly understand how the various firms have survived as long as they have. The thousands of pounds spent on advertisements weekly must constitute a severe drain on even the wealthiest firm of proprietors. One amusing feature of the contest was the way in which one particular firm got jumped on by a rival one for quoting a statement by "a writer who did not even sign his name," in "an obscure medical journal." The "obscure medical journal" was none other than our humble effort, the Gazette, and the unsigning writer was our Head Dispenser. Alas! what a thing it is to be famous.

News of old friends abroad is always welcome. We have heard lately that Harry Spon is expected to be in London again within the next ten days. That H. W. Bruce hopes to be back at Guy's in three weeks' time. That when about to start home a month ago, he unfortunately had another somewhat severe attack of the plague, but is now convalescent. That that excellent fellow, G. N. Mottram, is "going strong" with Colonel Lugard's expedition on the Niger, and that P. C. Higgins is the latest Guy's man to join that expedition.

The Annual General Meeting of the Cricket Club was held on the 14th inst., in the Anatomical Theatre, with Dr. Brailey, the president, in the chair. Owing to unavoidable postponements of the meeting, only a small attendance of members was obtained. However, the enthusiasm of all was raised to a very high pitch when Dr. Brailey, who was unanimously re-elected President, invited the whole meeting to dine with him on the evening of Whit Monday, the day of the Past v. Present match. The other officers elected were—Captain, K. B. Alexander; Vice-Captain, A. E. Clarke; Hon. Sec., H. Durbridge. Captain, Second XI., T. Morgan, and a Committee of five. A hearty vote of thanks to the Chairman, after the last season's report had been read by the Secretary, brought the meeting to a close.

Cricket practice can now be obtained down at the ground at Honor Oak Park. As the first match comes off on April 30th, it is hoped that men will do their best to get a bit of practice before that date. The track for running purposes will shortly be marked out.

Although rather late in the day, we feel we ought not to let the football season quite fade from memory before recording the fact that H. W. Dudgeon played for England in all three International matches, and in the two North v. South matches as well. On all these occasions his displays were most highly spoken of by the critics, and he has earned the reputation of being, perhaps, the most brilliant forward of the year in the English team. It will be remembered that last season he first obtained his International cap, playing against Scotland.

Our leading article on the proposed new house-appointments seems to have raised considerable discussion, and produced a great variety of

opinion. We publish to-day some of the correspondence that we have received discussing the question from the point of view of the qualified man of some years' standing, and it will be seen that the concensus of opinion seems to be in favour of the new scheme. We hope next time to publish letters from some of those men whom the arrangement will affect most of all, namely, present Guy's men who have not yet held a house appointment. We refrain from further criticism till then.

Betts duly received his testimonial last Wednesday week, and mightily pleased he seemed with the fine watch and chain that Mr. Lucas handed to him. We have seen old Betts in many rôles—as pigeon-feeder, bone-curator, lecturer's factotum and so forth—and on the occasion in question, he appeared in another, namely, as an orator—and an excellent speech he made, too. We received on that day a subscription towards the fund of 10/- from W. Otway, Esq., bringing the total sum (already acknowledged in the Gazette) up to £38 9s. The watch and chain cost £40.

The newly constituted Church Council, will hold its first meeting on Monday evening next. The duties of the Council will be, roughly, to take over the general management of the work connected with the Chapel, which, up to the present time has been entirely in the hands of the Chaplain. The new arrangement should prove an excellent plan, as the Chaplain's work proper, if we may so call it, is quite heavy enough by itself. Now, the business part of the work will be taken off his hands, and the united deliberations of the fifteen or so members of which the Council will be composed, should result in a still more satisfactory state of things than the present.

If the new Vaccination Law is to come into operation as it stands at present, it will be interesting to know what will be the future lot of the certificate-wanting medical student. Authorities on the subject are of opinion that the new arrangement will do away with vaccination stations altogether, and that the greater part of the work will be done by house-to-house visitation. This, together with the numerous loopholes for escaping the preventive measure which the new law apparently gives, will add still more to the difficulty that will be experienced in obtaining the practical knowledge required. Possibly the various examining bodies will have to amend or rescind their existing regulations concerning the matter.

The transformation of the post-mortem theatre from the dingy, grimy place it was last autumn to the veritable palace of delight it now is, is all the more remarkable when it is remembered that the change was affected with practically no interference with the work of that department. Nowadays, with its lysol canisters, burnished copper table, glass shelves, and white glazed tiling, one can almost imagine oneself to be in an aseptic operating theatre, rather than in the place it is. The inducements now to attend p.-m.'s are greater than ever.

For the information of those subscribers who missed the Gazette last Saturday and have written to Mr. Mills making tender enquiries for it, we would explain that it is customary to bring out twenty-five numbers of the Gazette per annum, and this necessitates missing a week twice in the year. The best times for doing so are obviously the vacation periods of Easter and the Summer. Hence no number last week.

Dr. Savage's course of lectures on Insanity, always most interesting and instructive, will begin on Monday, May 2nd, and the demonstrations at Bethlem Royal Hospital, will take place on Tuesdays and Fridays at 3 p.m. For these latter, men must send in their names to the Medical School Office.

The Primary Fellowship Examination has been fixed to begin on May 12th, and the Final on May 23rd. The L.D.S. examination will take place on May 13th.

We have been asked to call the attention of Guy's men to the last paragraph of "Chapel News" in this issue. We should very much like to see a Guy's man taking up this important post.

Mr. F. G. Hopkins has just written to us thanking all those who joined to give him a handsome clock and pair of vases on the occasion of his wedding. His letter was too late for insertion in this issue, but shall appear next time.

We referred last time to the sad death of George Burnage, the Maze Pond entrance porter. We have been asked by Mr. Prestage to thank all those who subscribed to the fund raised by his fellow porters to help his widow and children in their distress. The fund reached close on £20.

Correspondence.

To the Editor of Guy's Hospital Gazette.

The Proposed New House Appointments.

Dear Sir,—The question as to the desirability of appointing four additional assistant house-surgeons must be looked upon from two points of view: first, whether the patients will be benefited thereby; secondly, whether the staff and students will derive any benefit.

With regard to the patients, it is obvious that they will be better off, for under present arrangements on a busy out-patient day the assistant house-surgeon cannot do justice to the patients, owing to the enormous number he has to dispose of, the surgeon in charge having necessarily to spend most of his time in teaching the students.

In your leading article on this subject you state that many good men—by that I suppose you mean men who are able to use their professional knowledge to the best practical advantage—leave the hospital without having had a good practical appointment, and this is of course true. You then proceed to state that in your opinion of fifty to sixty men who qualify yearly, not forty are fit to hold house-appointments; this is in my opinion a very rash statement, and one which reflects seriously upon the various examining bodies, and also upon the medical school, for if the odd twenty or so are not fit to hold these appointments they are certainly not fit to undertake the responsibilities of general practice, which are far greater than those of house appointments, the responsibilities of which are really light.

The staff and students will also surely derive benefit from the new appointments, for the assistant surgeon will no longer be sending all over the hospital for an anæsthetist on operation day as formerly, and will also feel freer to teach on out-patient day knowing that the assistant house-surgeons have plenty of time to deal with the patients.

The students will be better off, for there will be more chance of those who deserve an appointment getting one. There will also be a better chance for students to get clinical experience.

With regard to the disadvantages you mention, I think a very few facts will dispose as them—facts which anyone who has been in general practice a short time will agree to.

The laity don't care a rap whether a man was formerly a house-physician or house-surgeon, or what hospital he hails from, and what qualifications he has got; in fact, they would think a man who can put M.R.C.S., L.R.C.P. after his name is better qualified than one who is a F.R.C.S., for there are eight letters instead of four. All they care about is whether you are able to make them better or relieve their pain.

Next, surely two men working in harmony can treat a case better than one man. Two heads are better than one, at least they used to be.

The value of house appointments are not known or understood by the outside public; as far as they are concerned, a man is as good with or without having held a hospital appointment.

No difficulty with regard to operations can exist where the house-surgeon and assistant house-surgeons are in harmony and work into each others hands.

The whole question as to the necessity for the new appointments seems to be the common-sense one of supply and demand.—Yours truly, ONLY A G.P.

Dear Sir,—The writer of the leading article in your last issue makes comment upon his criticisms of the new appointments, and with your permission I should be glad as one of the committee responsible for the proposal to submit some observations on the subject for the consideration of your readers. It would be hardly fair to criticise too minutely each detail of the writer's rather serious indictment against the proposal to appoint additional assistant house-surgeons, for he, himself, frankly admits that he had but two hours in which to prepare it, and as several months' consideration had been given to the scheme, before it was adopted in its final form, it was not to be expected that so hastily prepared a criticism would be invulnerable. It must be a source of satisfaction to all who read the article in question to feel that the spirit which inspires it is not dead at Guy's Hospital, for it is the spirit which has made Guy's the great school it is, and which will continue to insure its success even after the time has arrived when "six assistant house-surgeons shall be appointed every three months." The love of work for the work's sake is obvious in "every line" of the article, which may practically be looked upon as an appeal that no work shall be taken from the present hard-worked house-surgeons.

"We have never yet heard from an assistant or a full house-surgeon that he has too much work to do." Nor will that complaint ever be heard from the men holding senior appointments at Guy's until we are passing into the stage of decadence which seems at present as far away as ever. Nor would your contributor have heard the complaint twenty years ago when the senior house-physician for two months at a stretch had charge of the beds of two physicians in the general wards and clinical as well, and "took in" all the time. Those of us who are old enough to remember the change when for the first time a house-physician was appointed to each physician, remember also that similar gloomy forbodings to those which now oppress your correspondent were in the minds of many then at the hospital. Nor, if rumour is true, was there universal rejoicing when the reform was instituted which enabled every student of the hospital to hold the office of full-surgeon's dresser, an appointment which before that time was held by only twenty-four men in each year.

The tendency in modern medical education is to give as large a number of men as possible opportunities of practical experience, and on the whole it seems to work

well both in the interests of the public and the profession. Sir Samuel Wilks has often reminded us of the time when there was no resident staff, and when the entire treatment of the patients between the visits of the physicians and surgeons was in the hands of an old gentleman, who combined these duties with those of dispenser and dean of the medical school. The experience of this gentleman must have been unique, and some of his ready methods of diagnosis are to this day referred to in the wards with respect. We should hardly find any supporters of a proposition to return to this ancient system, although it would undoubtedly ensure that "a really good man should attain the pre-eminence he deserves." No, we must progress with the times, and as scientific methods of diagnosis and treatment become daily more complicated and elaborate, the work of the hospital must be divided amongst a greater number of men, both that it may be better done and that more may gain "experience" in the doing of it. Care must of course be taken not to step too far in this direction. Too great sub-division of the work may put it into incompetent hands, and may make the experience gained by any single individual too meagre to be of value. In instituting a new appointment, it is always necessary to make sure on the one hand that the work allotted to it shall be sufficient in amount and quality to provide valuable experience for its holder; and on the other hand, that the withdrawal of this work from the officer at present responsible for it shall not seriously curtail the value of the existing appointment. It must not be considered a fatal objection to the institution of a new appointment that it will *lessen* the duties of an existing officer. Some diminution of somebody's work must almost inevitably occur whenever a new appointment is made. But experience shows that among the type of men who fill our higher appointments having a little less to do does not mean that a man does a little less, but that what remains to be done is done more thoroughly.

I have gone thus fully into the general question of increasing appointments because it seems to me that in the article under discussion most of the serious arguments brought forward would apply with equal force to any proposal to add to the number of posts open to students qualified or unqualified. The rest of the article is chiefly taken up with describing the unhappy fate that will befall the hospital in general and the house-surgeons in particular when this *vast crowd* of assistant house-surgeons go out into the world and pose as house-surgeons. I should hardly have ventured to trouble you with any reference to this objection except that I should like in your columns to protest against the suggestion that the men who have held the less responsible position will assume the more important title. It is quite true that the public cannot distinguish between a house-surgeon and an assistant house-surgeon, nor for that matter can they distinguish between a consulting-physician and a house-physician, only if they happen to have connections in the professions they usually know that the latter is the more experienced person. In applying for appointments, it is generally understood that it is not the holding of a previous appointment, whatever may be its exact title, but the recommendation of the medical staff which ensures success. My own experience would undoubtedly lead me to believe that not only shall we be well able to find posts for our house-surgeons in the future, but that the staff of many a provincial hospital will be only too glad to have as a house-surgeon one of the holders of these new appointments, even though they recognise that his experience will not be so great as that of his senior colleagues. The objection to the title of these new officers seems to me not a very serious one. It is certainly difficult to find a more suitable name as it was for the new clinicals, and it is also certain that "assistant house-surgeons" will more clearly indicate the nature of the work of the new officers than it has hitherto done, that of the men taking charge of the surgery and out-patients.

While fully admitting the contention of your leading article that a man's own colleagues probably know more about him than his teachers, I am sure that those of us who have the responsibility of making a selection every three months from the long list of applicants for the senior appointments, will hardly share the fear that enough good men will not be found to fill the new appointments.—I am, yours sincerely,

ONE OF THE STAFF.

Dear Sir,—In your remarks in the last issue of the Gazette, concerning the Proposed New House Appointments, you state that from fifty to sixty men who qualify from Guy's yearly, certainly not "forty" of these are fit to hold house appointments.

To these remarks I feel exception must be taken for the following reason, that you insinuate that two-thirds of the men annually leaving Guy's are not practical enough to hold house appointments. This seems to me to be a very severe imputation against Guy's men's well-known practical capabilities.

A great number of the "forty unfit men" who leave Guy's yearly become house-surgeons to provincial hospitals, and it is whilst holding these posts that a man's practical ability is often put to the test, for a country house-surgeon has often to meet difficulties and deal with emergencies under circumstances which a London house-surgeon does not even dream of. For instance, you cannot call in a surgeon at a moment's notice, for perhaps he lives a mile or more away from the hospital, or is out at a case when you send for him, and when you have no assistant house-surgeon to help you, and you have to give an anæsthetic yourself, or get the matron or nurse to do so, and then do an operation on a strangulated hernia, it is then that the practical and cool-headed man is wanted; and I think that it may be safely assumed that many having these excellent qualities must annually be turned away from their old school as "unfit for the house appointments."

If only the hospital authorities would look a little more closely into the practical capabilities of the candidates for house appointments, a good deal of bitter feeling and disappointment would be removed, for as things now stand a good many men do not apply for the appointments, because they feel that as they are not brilliant on paper they thus stand no chance against the Fellowship and University men.

I have endeavoured to show that perhaps it would be a good thing for the house appointments if a few out of the "forty unfit men" be chosen to fill these positions, say, just for experiment. I think the Medical Council would repeat it ever afterwards.—I am, etc.,

COUNTRY HOUSE-SURGEON.

[Our correspondent misunderstood the writer of the article in question. He did not state that "forty are unfit," but that "not forty are fit"—two very different things.—Ed.]

The Results of Twelve Months of Clinical Assistants in the Medical and Surgical Wards and at Out-Patients.

Dear Sir,—I should like to say a few words in answer to your correspondent on the above subject, as far as the surgical side is concerned.

Clinical assistants naturally differ in their methods. I believe that if a clinical assistant does his work properly he will tell the clerks to see all the cases to which they are clerking dressed, so that they can make out their report from personal observation. A clerk not knowing much surgery, cannot always know what to put in his report. The clinical assistant knowing a little more surgery than the clerk, can inform him what are the chief points to note. I have asked the clerks who were on with me when clinical assistant in the surgical wards if I interfered with them in seeing cases dressed. I was told by those I asked that I had in no way interfered.

The clerks learn surgical cleanliness at operations which they attend in their capacity as reporters. I take it that now, as formerly, the clerks learn to bandage both at the surgical registrar's classes and in the surgery during "take-in" week. The clerks never were supposed to learn practical bandaging in the wards or to do any dressings in the wards, and even if they used to, I cannot see in what way the clinical assistant interferes with the practice now.

The second objection of your correspondent, to the appointment of clinical assistant, depends on his first objection, which seems to me to be unfounded.

As regards your correspondent's assertion that the clinical assistants are "the most ignorant men of their year," I should like to point out that those that have filled the post in the surgical wards have been mostly qualified men, and at least six of them have subsequently done house appointments, and eight have at some time or another done "clinical." Residents and clinicals are not usually supposed to be the most ignorant men of their year. These facts seem to show that the opinions of your correspondent and those of the authorities do not coincide.

I absolutely deny that the clerks are now found at the coat-tails of the clinical assistant. The clinical assistant is not a nurse to the clerk, to keep them out of mischief. He interferes as little as possible with the clerks, only helping them when they get into difficulties.

If a clerk is slack, the clinical assistant can stimulate him into writing reports; if the clerk is keen, he will write his reports, but occasionally get into difficulties, in which case the clinical assistant can aid him. I believe in this way the reports are better kept.

As regards the third objection, what is "originality in the work of a clerk"? Is describing "fœtal" vomiting in a case of strangulated hernia a specimen? A clinical assistant does not dwarf a man's originality, but rather helps out his ideas. A clinical assistant, by talking over a case with a clerk, may give him wider ideas as to the possibilities of a case.

I entirely agree with the advantages of the appointment mentioned by your correspondent.

There are many more things to be said on this subject, but I think this letter quite long enough, and I dare not trespass further on your valuable space.—I remain, etc.

FRANCIS A. GODSON.

The Cycle Stable.

Dear Sir,—In answer to your note in "Passim" in last number, I should be glad if you would note in the next Gazette the fact that the cycle stable under Cornelius ward has been handed over by the House Committee to the care of the Students' Club, and is nearly ready for occupation. No responsibility will be accepted by the Hospital or Students' Club for the custody of the machines.

Due notice will be posted when the stable is quite ready.—Yours sincerely,

JOHN FAWCETT,
Hon. Sec. Students' Club.

24, St. Thomas's Street,
April 6th, 1898.

Chapel News.

(Contributed by the Chaplain.)

The twelve elected members for the first council (particulars of which appear in another column) are—Sisters Cornelius, Job, Stephen, and Bright, Nurses Lambert, Rowell, Rowland-Jones and Tippetts, Messrs. F. E. Fremantle, R. Howard, F. Shufflebotham and F. E. Walker.

With regard to the Easter decorations we cannot do better than quote the criticism of a man who had communicated in our Chapel on every one of the last seven Easters. "It seems to me," he said, "that the decorations get better every year at Guy's." Sister Job and her

band of helpers will find that the speaker voiced the opinion of all the worshippers in Guy's Chapel, and to this appreciation of their labours we add our very cordial thanks.

We have also to thank the Matron, Sisters Esther, Patience, Job and Lydia, Mrs. Sturt, Misses Wilson and Burdett, and Mr. Howard for gifts of flowers and other material.

Bishop Corfe, of Corea, writing from the Vicarage, Vassall Road, Brixton, S.W., wants to know if Guy's could furnish him with a qualified medical man to take charge of his hospital and dispensary for natives at Chemulpho? The vacancy has been caused by the sudden death of Dr. Landis, who, together with the hospital, had "a small European practice." The bishop writes "The man should be a member of the Church of England, but I do not ask him to undertake mission work. His passage out would be paid, and, if he stayed a certain time, his return passage also. He would have board and lodging, and if he needed it, I would try to give him a small salary, but the Mission is very poor. I am anxious to telegraph as soon as possible that I have secured a man."

Obituary.

Edmund Hooper Galton, F.R.C.S.

The death of Mr. Edmund Hooper Galton, F.R.C.S., of Brixton, at the age of 61, is a great loss to the public, the profession, and the British Medical Association. He was a student at Guy's Hospital, and joined his father in practice at Brixton in 1857. His energy and ability were shown by his taking the F.R.C.S. by examination in 1868 while in full practice. Of genial and most hospitable nature, the very soul of professional honour and an admirable speaker on public occasions, he secured a large circle of private friends and attached patients. Nor did his activity find full scope in his profession. He was largely instrumental in promoting the success of the Conservative cause in his district by a series of addresses to working men, and his influence in political circles was great as chairman for many years of the Streatham and Herne Hill Constitutional Association. He will be missed at the Branch meetings of the British Medical Association. At which he was a constant and ever-welcome attendant, and he was also an active member of the Parliamentary Bills Committee, where his political knowledge gave him much influence.

For thirty years he held the office of surgeon to the City of London School, where he was highly esteemed. No man has probably enjoyed a greater measure of love and respect among his professional neighbours, and all who have heard him have joyed in the lucid and eloquent addresses from the now silent tongue which touched nothing it did not adorn. So eager and active a life, with a disregard of self in the discharge of duties, professional and public, left little reserve energy to fall back upon.

In July, 1897, he was taken severely ill with thrombosis in the leg; attacks recurred in various parts of the body, and for sixteen weeks he lay between life and death, but by the kindly tendance of his friends, Dr. Burgess, Dr. Mutch, and Dr. Brock, and his brother Dr. John Galton, assisted by Dr. Pye-Smith and Dr. Goodhart, and aided by devoted nursing, he recovered and went to Dover, where Dr. Parsons kindly looked after him. He came back to work on January 15th this year, but soon contracted influenza in his duty, recovered, and got to work again, only to encounter a fresh attack of influenza from which he never recovered. Hope of recovery was not abandoned till four days before the end, and on March 25th a forlorn hope of relieving the cause of his condition was dispelled by an exploratory incision over the liver by Mr. Symonds, and he died on March 26th. The necropsy revealed a softened friable heart muscle and a large spleen, with a general absence of blood in the tissues; so that, looking back upon his long illness, and feeling that he never could have carried on active life, his friends cannot altogether regret that he was taken from the struggle, and was spared the sorrow of finding that he was incapable of his old activity. The many who are left to mourn him may find a consolation which the writer, who suffers the irreparable loss of a life-long friend, finds in the words of William Morris:

Come—pain ye shall have and be blind to the ending!
Come—fear ye shall have mid the sky's overcasting!
Come—change ye shall have for far are ye wending!
Come—no crown ye shall have for your thirst or your fasting,
But the kist lips of Love and fair Life everlasting!
Cry out, for one heedeth, who leadeth you home!

Is he gone? Was he with us?—Ho ye who seek saving
Go no further, come hither, for have we not found it?
Here is the House of Fulfilment of craving;
Here is the cup with the roses around it;
The world's wound well healed, and the balm that hath bound it
Cry out! for he heedeth, fair Love that led home.

Mr. Galton was buried on March 30th, the first part of the funeral service took place at Brixton Church and the interment at Norwood Cemetery. The funeral was attended by numerous friends, including Dr. Pye-Smith, Dr. C. Holman, Dr. Rand, of Dulwich, Dr. C. Browne, Dr. Soper, of Clapham, and Mr. Frederick Durham.

(From the *British Medical Journal*).

Round the World.

The Guy's Gazette was good enough to honour me, by requesting an account of my recent voyage round the world. Now, I find a certain amount of difficulty in doing this, for two reasons. Firstly, this journal is far too attractive in other ways, that, I feel I shall experience some little trouble in meeting the wishes of those who may read this account of my trip. Secondly, so much has hitherto been written on the same subject, by greater travellers than myself, that one feels constrained to enquire if there is anything fresh to chronicle. However, I will do my best, with the hope that I may at any rate

furnish some points of interest, which, at the same time, may also prove instructive; but my readers must clearly understand that, although I may appear at times egotistical, the opinions I give are only those of one individual, and quite open to criticism by those who may probably know considerably more about the world than I do. By way of introducing my subject, I must mention that the cause of my departure from this country, was ill-health; I will not dwell on this, only in so far as it may be involved in my story from time to time. My selection of the R. M. S. *Gothic* as my conveyance proved ultimately a good one, as she turned out to be a fine vessel. A start was made from the Royal Albert Docks on January 21st, 1897, in a perfectly blinding snowstorm, arriving at Plymouth the next day, after experiencing a very dirty night. Here the usual mails with the passengers who had not already joined the ship, were taken on, and by daybreak next morning old England was lost to view, the next stop being Santa Cruz, the port of Teneriffe. Before our arrival there, the journey being about five days, a few words concerning the ship and crew may be of interest. The vessel is 7,735 tonnage, built after the same pattern as the White Star Atlantic Service by Messrs. Harland & Wolff of Belfast. Her owners are Ismay, Imrie & Co., but she is chartered by the well-known firm of shippers, Messrs. Shaw, Savill and Co., specially for the New Zealand trade. When homeward bound, she conveys between 60,000 and 70,000 carcasses of mutton in the freezing chamber. She is peculiarly adapted for passenger traffic, being spacious and accommodating in every way. The cuisine on board is as unique as the tariff is liberal, and whether equalled by other liners or not, it certainly cannot be surpassed. In regard to her officers, Capt. Kidley, R. N. R, cannot be described as altogether a "passengers' captain," but his first idea undoubtedly is his duty and the safety of the vessel, and I am satisfied that most people on board were content, knowing this fact. Mr. Inman, the purser, is in every way obliging and courteous, and indefatigable in his endeavour to please all and offend none. There appears to be a kind of rule in the White Star Company, about their navigating officers in reference to the passengers; unlike other Antipodean liners they do not have anything in common. Now this strikes one as slightly arbitrary, and whilst admitting that the officers' duties are such, that they should on no account neglect their proper rest, there is no doubt, in my opinion, that the passengers would appreciate a quiet chat with them sometimes, and surely it would relieve the voyage a little of its monotony. I mention these few facts because they are all such excellent fellows in every possible way. To intending passengers to our Colonies, I would strongly recommend the foregoing line of steamers.

Arrived at Teneriffe, landing is accomplished in small boats. The interior of the town of Santa Cruz is as dirty as the exterior of the island is picturesque and beautiful. A trifling incident occurred whilst rowing back to the ship at night. A gentleman with a Spanish look about him demanded more money than seemed good for him. Being the small man of the party I resented his conduct and belaboured him with my umbrella freely; there seemed every likelihood of a free fight, but the ship's side was reached in safety. Whilst on this subject I would warn future passengers against dictation of terms by any of these skalewags at any port, a little gentle persuasion such as I used will generally be sufficient. Having taken on board the necessary coal, Santa Cruz is bidden adieu, except that we keep the lovely peak of Teneriffe (12,500 feet) in sight for a long time after our departure. Capetown being now some fourteen days' journey, our daily routine must be examined. Already a club had been formed, and a committee chosen to regulate and provide amusements, and it only remained to set the ball merrily rolling. Plenty of deck cricket, which is real good exercise, athletic sports and pastimes were the orders generally. It may savour rather like a fairy tale, but "yours truly" became an adept at cock-fighting; owing to the weakened state of the hamstrings, I have no desire to again contest the championship. Perhaps one of our chief amusements, with a tendency to excitement, was the "Calcutta sweepstake" each day on the run of the ship. The committee appointed me auctioneer, the only thing hanging to the office being one lemon squash per diem; I attribute their choice to my generally having so little to say. The sales were carried on uninterruptedly for six weeks, the result usually amounting to between £30 or £40 each day; by this means I was enabled to announce at the end of the voyage that £35 would be handed over to the Dreadnought Seamen's Hospital as a result of our dissipation, the largest sum ever collected on the ship for that special cause. Having passed the equator where the weather was very oppressive, day by day we neared Capetown. Just previous to our arrival, however, it was found necessary to try a passenger by court-martial for objectionable conduct. This may seem strange to my readers, and it is without doubt unusual, but on the present occasion it was no child's play, and as the defendant was ultimately found guilty, one can well imagine his position was not by any means an enviable one. There is really a great deal of petty quarrelling on board ship, and although one ought not to be too severe on the ladies, there is no doubt they create a little mischief at times, but luckily everything generally ends all right.

Capetown, with Table Mountain, is a very imposing sight as our ship approaches Table Bay. The town itself, I was astonished to find, is so much behind the times, and not to be compared with the chief towns of the Australian colonies for enterprise. I called on Fred Hazell, an old Guy's man, and his numerous friends will be glad to know he is doing well. I should have liked to have seen my old friend Rogers, whom "Lord George" Hamilton has lately joined in Johannesburg; the best accounts were to hand concerning his welfare. By almost a serious error I nearly got left at the Cape, but although the ship's propeller was going round in the water, by the aid of a rowing-boat I scrambled home by

a short head, the incident affording no little excitement to the passengers, who greeted me with ringing cheers.

In continuing our journey of twenty-one days through the Antarctic Ocean bound for Tasmania, owing to the entirely different atmospheric conditions, our voyage assumes another character. Quickly losing the warmth of the tropics, heavy rolling seas are encountered in the "rolling forties," one cannot say it is as comfortable as heretofore, because a vessel that keeps up heavy rolling for any length of time, makes it almost impossible to sleep at night, and one feels much more inclined to swear; thus it may be taken for granted that although the sea hath its pleasures it has also its disadvantages.

During our passage down south, about latitude 50°, suddenly the icebergs loom up in the distance. I can assure my readers I have no wish to be confounded with Nansen, I am not quite so fond of the ice as he may be, and prefer, from what I have seen, to keep at a respectful distance. To the new-comer, however, these "bergs" are a lovely sight, and some of them very extensive, varying from 100 to 400 feet in height, and when one remembers that only one-third shows above the surface of the water, one knows what a very large body the whole iceberg must be. Now and again a fog comes on, and navigation is carried on with the greatest caution; altogether the ship remains in the vicinity of ice nine days.

When our vessel was midway in the Southern Ocean, it is then 3,000 miles from inhabitable land. There is an island called Kerguelen situated in mid-ocean where the Government send stores in case of shipwreck, but I for one would rather forego the pleasure of being turned into a shipwrecked mariner in the part of the world to which I refer. Day by day our ship makes steady progress, and Hobart is reached at early morning, March 3rd. Of this fact I have unfortunately a vivid recollection, a relapse of my illness necessitating being carried ashore; it was a sad blot on my journey, painful alike to my fellow-passengers and self; I trust I may be spared ever going through the same again. I was taken to the General hospital, a charming little place, where I received the greatest kindness and attention. Please note that the preceding lines are not intended for an advertisement for Dr. Brown's Pink Pills. To resume, being one of the "Medical ilk," I was shown round the hospital, and amongst its many attributes discovered a very nice little operating theatre, and being asked my opinion by the officials, pronounced it quite up-to-date. The practice of aseptic surgery has reached the other end of the globe quickly, for which many thanks, inasmuch as it benefits our suffering friends "down under." I should like to mention that in this hospital they make no house appointments unless qualified in the colonies, in fact "no English need apply."

Gaining strength, I made a short detour of Hobart and the neighbourhood; the scenery is excellent and very interesting, and I felt I could well spend the rest of my days beneath the summit of the snow-clad mount Wellington. There is something else that is beautiful in Tasmania—I refer to the girls; they are not affected by the heat so much as in Australia, the climate being less severe accounts no doubt for their fine complexions. I did not, however, bring one home with me, so my friends must accept what I say as correct.

The journey is now practically continued through Tasmania by train, being a narrow guage railway it takes 6½ hours to traverse 137 miles, that is from Hobart to Launceston; the journey is not, however, very tiring, the scenery throughout the route being certainly diverting, and the cuttings for the railway at different parts are really wonderful pieces of engineering, the line describes such twists and turns, that the train at times appears to curve on itself. I can never understand why Hobart is the capital, Launceston is so far in advance with its drainage and electric lighting, etc.; parliament, however, meets at Hobart, and I think the Launceston people are very jealous of this fact. The Brisbane Hotel was my abode for a few days, very comfortable place, but for a regular pest of flies. I drove to the famous gorge one Sunday, and it well repaid me.

Leaving Launceston by the ss. *Coogee*, 900 tons, bound for Melbourne, twenty hours' journey, I experienced a fearful passage crossing the notorious Bass Straits, and right glad was I to see St. Phillip's Heads. This steamer used to be formerly in the Liverpool and Isle of Man service, and was known as "The Lancashire Witch"—very appropriate name I consider, perhaps might be improved by substituting "devil" for "witch." Arrived in Melbourne, I witnessed the biggest rain storm I had ever seen, and at once recognised that the rain experienced in the Antipodes is, vulgarly speaking, "mind your eye." I stayed at the Grand Hotel opposite the House of Parliament, but these hotels in Australia are not nearly so grand as their names imply, some of them being worked on the coffee palace system. The drainage in this city was absolutely disgusting, and it really astounded me to think, that such a splendid city in many respects should be so far behind the time, as to have neglected the first laws of sanitation. I am given to understand, however, that a scheme for the drainage is now being carried out satisfactorily. One of the chief sights of Melbourne are the cable trams, crossing and recrossing each other in a wonderful manner throughout the city, a direct contrast to Sydney, where tram locomotion is carried on by big ugly steam-roller looking traction engines, making enough noise and vibration to take the roof off one's head.

Leaving Melbourne hastily in order to enjoy the full benefit of the climate in New South Wales, necessitated travelling by the "overland express" to Sydney, 700 miles. This is accomplished by a corridor train as far as Albury on the Victorian border where, at 11 o'clock at night one changes into the New South Wales train. I must here pause to explain the cause of this change. The Victorian Government have a different gauge to the New South Wales Government; this undoubtedly in the first instance was brought about entirely by the keen rivalry between the two Colonies. Does it not seem to the reader

unpardonable, that two divisions of the same country, populated by a mere handful of people, should so far disagree politically, thus causing all this unnecessary trouble and expense? The Colonies are endeavouring to federate now, and they are likely to be doing so till doomsday without much result; but even if they do come to terms, how much money will have to be spent in altering the railway gauge, new rolling stock etc., one dreads to think, all entirely due as the result of early foolishness coupled with jealousy. I had a comfortable sleeping berth in the New South Wales train and knew no more till Moss Vale was reached for breakfast at nine o'clock next morning. The country between Melbourne and Sydney is quite uninteresting, thus early I was much impressed by Max O'Rell's description of Australia "as the land of the one gum tree." The Hotel Metrôpole was my hotel, but to future travellers I would recommend the Australia or the Arcadia. The English cricketers stay at the former.

Now, of course, every second person will enquire, Have you seen our harbour? Needless for me to add it is very charming and worthy of everything that is said about it. I shall later on contrast the two great harbours of the world, namely, Sydney and Rio Janeiro, both of which I have seen. A few words about Sydney itself: it is a livelier city than Melbourne, and a great deal more business is done in the former at the present day; it is fairly well drained and well lighted. There are some very nice botanical gardens extending right down to the edge of the harbour, I frequently spent many a pleasant afternoon strolling thereabouts. The city boasts of three or four theatres and two music-halls, and from time to time London artistes are to be heard, the local talent not being extra grand; Wilson Barrett and his company were touring there when I left. Amongst the buildings mention must be made of the town hall, which has inside it, I believe, the finest organ in the world. I was a constant visitor to the recitals, but I do not think the majority of Australians appreciate this wonderful organ, for several people I spoke to had never heard it, whilst others did not know it existed. They are building now some large market-places in the city at a cost something like £300,000; 'tis true they may be useful, but they look gigantic enough for London itself.

Being in receipt of an invitation from Jack Bettington to visit him, I travelled by the northern mail 185 miles to Muswellbrook, arriving 1.30 at night, stayed at the hotel, and left at eight o'clock the next morning by the coach for Meriwa; the conveyance was a ramshackle affair that shook me up terribly along the bush track. Finding the driver was a good listener the time passed away somehow, taking nine hours to do the journey. Jack Bettington met me with a pair of grey ponies tandem, and drove six miles further to the station. I regret to say that my health failed the same evening, which practically rendered me an invalid for several weeks. Our friend Jack is married and settled down, he has got very stout in spite of horse-riding and continual exercise; his house is nicely situated with every thing up-to-date, and his duties consist in managing a sheep station of 75,000 acres for his father, this being only a small portion of the estate.

The editor has kindly asked me to extend my article over two numbers, so I propose now to leave my readers in the bush, and will continue in our next with an account of bush life and travel from Australia via New Zealand and South America homewards.

SIDNEY G. LAYMAN.

(To be continued.)

An Inter-Varsity "Mensur" or Duelling Match.

By E. H. Van Someren, M.R.C.S., L.R.C.P.

"Leonensia" (Heidelberg) v. "Saxonia" (Tubingen).

Student duels in Germany are of two kinds, the serious, and the "Sporting." The former are comparatively rare, for penalties consequent on a fatal result are severe, the two responsible "Corps" in such a case being imprisoned *en masse* for three years, the principal and seconds for longer periods. Sporting duels occur at least twice a week and are of a friendly nature, being just trials of skill, though attended with much loss of blood and facial disfigurement.

Duelling as a custom is encouraged by the university authorities and is on the increase, more especially as a sport. The weapon used, the "Schlaeger" is a straight narrow piece of steel about a yard long and half an inch broad. It is hilted like a claymore, the guard being rather larger. The end of the weapon is quite square and sharpened on both sides for two inches from the end, and along the square end, like a chisel with three edges instead of one. The only parts of the body left unguarded are the face, forehead and the front half of the scalp. The eyes are protected with thick rimmed steel goggles, without glasses; the neck with a padded silk bandage wrapped three times round; this extends from the chin to the root of the neck and is there met by the cuirass of leather, cane, and padding, divided below, which reaches to the knees. The axillæ, heart and pubes have also padded guards under the cuirass. The right arm is bound round in silk from wrist to shoulder, and padded sleeves guard both arms. The right hand has a tightly-fitting, soft leather glove.

The Mensurs take place outside the town, on the opposite side of the Neckar, in a large room used for the purpose since the end of the last century. It was built on to a picturesque little inn, a haunt of old-time students, but now given up entirely to duelling. The room is large, lofty and well lighted, about 150 by 60 feet. It is decorated with the colours and flags of the various corps and with the busts of the three Kaisers, William I. Frederick, and "The man with the mailed fist." There is a buffet at one end of the room, the contests taking place at the other. A single row of wooden tables, some benches and chairs run along the two sides.

At the duelling end, which is covered two inches deep with sawdust, two chairs are placed back to back about four yards apart, on the backs of which the fighters rest between the rounds. Between these two chairs and four yards away is another for the umpire. From this room opens a smaller one, where the men change, and where they come bleeding to be stitched up and dressed after the duel. There each wounded man is visited by the umpire, his wounds counted and the number of sutures inserted to close the incisions duly noted and handed on a printed form to his adversary.

These forms are paraded in the students' rooms in the same way as the "pots," "footer caps," "oars," etc. are in ours.

The men being dressed, march in two little processions into the larger room. These consist of the principal whose right arm is supported by a student, extended on a level with the shoulder to prevent fatigue from the weight of his padded sleeve. His second, guarded as to head, eyes, throat, and right arm, and armed with a blunt schlaeger. Two doctors, one of whom carries the sharp schlaeger, the end of which has been rendered aseptic, and the dresser; this last is like our ground man, and his only function is to remove or replace the principal's chair. These contests are wrapped in so much formality that an account of many would be uninteresting. I'll try and detail one, the most bloody and the longest that I witnessed.

Six men from "Saxonia," the crack corps of Tübingen University, had come over to fight with "Leonensia" of Heidelberg. The president of this latter corps is the reputed best fencer here, and a son of Dr. Czerny, the eminent surgeon. The presidents of each corps were to fight together, the others balloting for their opponents. The two men, much of a size as far as one could judge, take their places, pale, but with a fierce look about them which their goggles may have exaggerated. The umpire seats himself. The seconds uncover, and state in turn the name and standing of their principals. The umpire announces the duration of the duel (generally fifteen minutes, which can be prolonged to half an hour), and then orders the "Ehrengang," or salute. The principals step sharply forward to within a schlaeger's length of each other, standing with feet apart, the right a little in advance, the right arm fully extended above the head, inclined slightly to the left. One of the seconds gives forth a prolonged yell which I discovered afterwards was:—"Auf Mensur, fertig, los" (To the fight, ready, go), and the schlaegers wheel round in salute to return "on guard." The umpire again calls "Silentium," and orders the first round. Principals fix themselves firmly in the sawdust and the seconds bend back sideways (they are on the left of their men), the shout is repeated and strokes are exchanged with great rapidity, "parry and riposte," with no interval. After eight or a dozen strokes are exchanged the seconds cry halt, and interpose their weapons. No wound has been received; this they announce to the umpire, who orders a renewal. Again the yell. This time the contestants seemed to have gauged each other's powers. There is a little pause before commencement. Suddenly, whiz, and a whisp of hair flies into the air from one man's head; then blows in rapid succession. A yell of "halt," and a little red line on the forehead seen and heard at the same time. This is examined by the doctor, who dabs it with a plug of wool dipped in Hyd. Perchlor., and steps back; it is announced to the umpire by the second, and is noted down—first blood falls to Heidelberg. Tübingen tightens his lips and looks like business, which he duly effects, for before the next cry of halt he manages to score a three inch cut on his adversary's scalp. A longer halt this time, then at it again. Both men have now got their blood up and seem to put more muscle into their strokes. A red line appears on Heidelberg's nose, and Tübingen's forehead cut is continued at an angle down over the left eye. On the renewal the men present a ghastly sight; both are pale, the blood freely oozing from their wounds, running down over their faces and cuirasses and dripping on to the sawdusted floor. The last round is announced. The men are about equally much cut about, so both are keen on getting in a long many-suture-requiring stroke. This, after a particularly savage exchange of blows, falls to Tübingen. Parrying very rapidly he follows with a cut which gets in under Heidelberg's guard, and a long line appears on the latter's cheek, it widens quickly, shooting out little spurts of blood near the ear, then pours down over the face. The doctor steps up quickly, looks grave. Heidelberg gets rapidly paler, and finally sinks into his second's arms. Tübingen shakes him limply by the hand, and both men are assisted out. This man's temporal artery was severed, and Heidelberg's scalp wound went through scalp and periosteum down to bone.

The other duels were very similar, save that between the two presidents. It formed a regrettable incident, which is not without precedent. The office of second is a very difficult one, and as a rule in important encounters, only experienced fighters, who have previously qualified, occupy that position. It is the duty of the second to guard his man as much as he can within rules, and a clever second can often save his principal an ugly wound. He must also keep his head and correct such slips as the umpire may possibly make, for he virtually orders the duel. The Tübingen second in this case, fortunately for the home side, made the mistake. The men had taken their positions and were on guard. The onlookers eager for what promised to be an unusual exhibition of skill. The "Ehrengang" was ordered and performed. By a slip the umpire ordered silentium for the "Ehrengang" again. There was some talking in the room which perhaps excused this. The second ought certainly to have corrected it, but he said simply his usual "Auf Mensur, fertig, los." His principal hearing the "Ehrengang" ordered and not corrected, performed it while his opponent made a sweeping up-stroke, and laid his cheek open for four inches at least. An awkward hush fell on the whole room. The two men standing silently on guard till the seconds recovered themselves, poor Tübingen

bleeding sadly the while. His feelings can be better imagined than expressed. His second withdrew him. The men shook hands and parted.

Now there is no doubt that the custom of duelling as carried on here fosters a Spartan spirit, and a disregard of physical pain; but as there exist two systems of fencing so excellent as the French and Italian, which call for a great deal more agility, and which develope quickness of body and arm, besides of wrist and eye, which this only does, one fails to see why the German should continue a system which brings with it so much physical pain and permanent facial disfigurement, even deformity. Should the actual shedding of blood be necessary in a play such as the ordinary Mensur is, you can get enough by fighting with a foil, Italian or French, with an almost buried asepticised tin-tac in the string button, such as is sometimes used in France.

The womankind here in Germany are in a measure responsible for the continuance of the system, as they dearly love to see a few scars on a man's face. It denotes the possession of a certain amount of pluck, and shows that the man is not only a bookworm. Here, for instance, and Heidelberg is very representative, there are 1,500 men, and of these only about 300 fight. For this reason perhaps, men seek a scar or two. It is most unusual for a fighting man to get through his university life unscarred —Bismarck was one. An Englishman who was here a few years ago held the record number of duels, and left unscarred.

Review.

A Short Guide to the New British Pharmacopœia, 1898. By John C. Umney. Price One Shilling Wright, Layman & Umney, Southwark Street, London, S.E.

The New British Pharmacopœia will be published in three or four weeks' time. The Medical Council have, however, placed at their offices, advance copies for the convenience of wholesale druggists, manufacturers, and others. Mr. John C. Umney has taken advantage of this, and in an incredibly short space of time prepared a most complete guide to a book which has been awaited with so much interest. This "short guide" is not a mere dry detailed account of the additions and omissions in the New Pharmacopœia, but an interesting work upon the various new preparations and alterations. The author is a well-known pharmaceutical authority, and the results of his practical work have had considerable influence in the moulding of the British Pharmacopœia, 1898. To give an example, Ipecacuanha Wine is now directed to be prepared from the standardized Liquid Extract by dilution with Sherry, 1 to 19. The method of standardization of the Liquid Extract is one devised by Mr. Umney.

It would be impossible within the limits of this short notice to mention even a fraction of the most important facts concerning acids, elixirs, standardization, etc., etc. The book can be obtained within a stone's throw of Guy's, and we recommend everyone to get a copy. We might give one fact which without a doubt will be comforting to those preparing for Materia Medica, and Pharmacy examinations. Uniformity of doses has been adopted, and in many cases strengths of preparations have been altered so as to admit of this unification.

Appointments.

CIVIL.

Bevan, R., L.R.C.P. Lond., M.R.C.S., D.P.H., has been re-appointed Medical Officer of Health by the Ashford, Kent, Urban District Council.

Hitchins, F. C., M.R.C.S. Eng., L.R.C.P., has been appointed House-Surgeon to the Stamford and Rutland Infirmary, Stamford, *vice* S. Copley, resigned.

NAVAL AND MILITARY.

Sichel, Surgeon G. T. S., F.R.C.S., R.N., has been appointed to the Royal Naval Hospital, Malta.

Hall, Surgeon-Capt. Gilbert Capel, A.M.S., has retired from the Service.

O'Meara, Surgeon-Lieut. E. J., I.M.S., is posted to the Punjab.

Births.

COLEMAN.—On April 13th, at The Laurels, Bridlington Quay, the wife of J. Gordon Coleman, M.B. Lond., M.R.C.S., L.R.C.P. Lond., of a daughter.

CULMER.—On March 30th, at Nassau, Bahamas, the wife of John J. Culmer, M.R.C.S, L.R.C.P. Lond., of a daughter.

MEYRICK-JONES.—On April 8th, at Church Street, Crewkerne, Somerset, the wife of A. M. Meyrick-Jones, M.B., B.S., F.R.C.S., of a son.

Marriages.

BIGGS—WILSON.—At St. Andrew's Church, Cardiff, on the 9th inst., by the Rev. Dr. Horatio Langerslie Nicholson, John James Egerton Biggs, M.R.C.S., L.R.C.P. Lond., of 147, Newport Road, Cardiff, eldest son of John Biggs, Esq., Oldwell, Penylan, Cardiff, to Louisa Frances Maude, second daughter of the late John Heron Wilson, Esq., of 37, Park Place, Cardiff.

SHEEN—INGLEDEW.—At St. John's Church, Cardiff, on April 14th, by the Rev. Canon Thompson, D.D., Vicar, assisted by the Rev. F. J. Beck, M.A., Vicar of St. Margaret's, Cardiff, Alfred William Sheen, M.D., M.S. Lond., F.R.C.S. Eng., to Christine, second daughter of John P. Ingledew, Esq., Angleham, Cardiff.

Deaths.

GALTON.—On March 26th, at 128, Brixton Hill, S.W., Edmund Hooper Galton, F.R.C.S., aged 61 years.

KING.—On April 7th, at the English Nursing Home, Cairo, Thomas Percy King, M.B., B.C. Cantab., M.R.C.S., son of the late Dr. Thomas King, of Rochford, Essex.

Ed.—F. E. W.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold, will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

May.

Sat. 7.—Mr. Howse's take-in; Drs., E. E. Parrett and E. J. Tongue; Cl., E. G. Goddard.
G.H.C.C., I., St. Mark's College, home.
G.H.L.T.C., Test Match, home.

Mon. 9.—Practical Exams. for Dental Prizes begin.
Extractions at 9.0 a.m.

Wed. 11.—Mr. Davies-Colley's take-in; Drs. E. P. Davies and J. B. C. Brockwell; Cl., P. W. Moore.
1.30 p.m., Clinical lecture by Dr. Pitt.
G.H.C.C., Trial Game, home.

Thur. 12.—Primary Fellowship Exam.
G.H.C.U., Address.

Fri. 13.—L.D.S. Eng., Exam.
1.30 p.m., Clinical lecture by Mr. Symonds.

Sat. 14.—G.H.C.C., I., Crystal Palace, away.
II., Croydon II., home.
G.H.L.T.C., Hornsey, home.

Wed. 18.—1.30 p.m., Clinical lecture by Dr. Pitt.
Mr. Lucas's take-in; Drs. W. H. Edwards and C. Edwards; Cl., H. Cardin.
G.H.C.C., I., Croydon, home.

Fri. 20.—1.30 p,m., Clinical lecture by Mr. Symonds.

Sat. 21.—G.H.C.C., I., Surbiton, away.
II., Granville (Lee), away.
G.H.L.T.C., Weighton, home.

Guy's Hospital Gazette,

MAY 7, 1898.

Angina Pectoris.

TWO CLINICAL LECTURES BY DR. GOODHART.

LECTURE II., MARCH 12th, 1898.

GENTLEMEN,—In my last lecture I was dealing with the subject of Angina Pectoris, and I read you the account of the death of the great Dr. Arnold as recorded by Latham. I will now give you a brief epitome of the case of Matthew Arnold, his son, who also suffered from this disease:—

*Matthew Arnold, the distinguished son of Dr. Thomas Arnold, died suddenly in his 68th year. The various stages in the progress of his disease are well given in his letters. Thus—"I have been having a horrid pain in my chest, and on Friday mamma carried me to Andrew Clarke, who has put me on the strictest of diets for one week, he thinks the pain is not heart but indigestion. At present I feel very unlike lawn tennis, as going fast or uphill gives me the sense of having a mountain on my chest, luckily in fishing one goes slow, and stands still a great deal." To his daughter about the same time he writes—"I cannot get rid of the ache across my chest when I walk; imagine my having to stop half a dozen times in going up to Pain's Hill!" Later he writes—"On the whole I did more yesterday and did it easier than I have done since I was first visited by this pain." Later still—"I got on very well, and skating did not bring on the chest pain; smooth motion does not, but laborious motion, making my way uphill or through snow." After a narrow escape from drowning—"The shock exhausted me rather, and was followed by a week or so of troublesome attacks of pain across the chest." Later—"I am quite my old self again, walked about London all day in the fog without choke or pain."

In my opinion this is a much more typical case than that of the father, and this leads me to speak about the necessity of being able to recognise mild cases as well as the severe ones. Now, the severe cases are certainly not common, but the mild cases are, and they are very easily mistaken, and you must be on your guard so that you can recognise it through the patient's diagnosis, which will very likely take the form of indigestion, neuralgia, flatulence, and so on. For instance, a man may come to you complaining of indigestion; you take the trouble to unravel the symptoms, and you note that he is not the kind of man you expect to suffer from indigestion: you also note that the pain is paroxysmal, and probably find that it is the result of exercise or mental worry;

*Abstract of a note appended to Lectures on Angina Pectoris, by W. Osler, M.D.

a common history is that the pain comes on when the patient walks uphill, and when he stops, it subsides. But the pain may come on in various ways and the symptoms may show all sorts of vagaries.

I can call two cases of this kind to mind; in one case, a man, who has been going on in this condition for years, can bicycle, walk and take exercise freely and is a great speaker, but the pain always catches him when he rises from a chair. I was going to say that the attacks are confined to these occasions but that is not absolutely true, for when he took his holiday in Switzerland, he experienced some trouble when climbing some of the high mountains. In the other case, a man, in perfect health, who, if he can find a genial friend to accompany him, will walk all the afternoon without the slightest discomfort, yet gets an attack every morning when walking from his house to the train after breakfast; he is all right again when he is in the train, but on getting out again to walk to his office he is again attacked; and this is the only time throughout the day. This is a very common time to have these attacks, partly, perhaps, because one is getting into harness then for the business of the day, and partly due, very likely, to the presence of a full stomach.

The next point is the question of physical signs: opinions differ here. Osler, in his book on Angina Pectoris, says that he thinks the majority of the cases present definite physical signs, but such is not my experience, which has, unhappily, been no small one. The points to bear in mind are: there may be some alteration of the pulse; there may be some alteration of the cardiac sounds; the chief of these is a galloping rhythm, though this is not common; or the sounds may be modified so as to resemble those of a fœtal heart—as was pointed out by Osler—a ringing second sound, and a feeble, unsustained first sound. Thus in the case of a lady whom I was called to see, who was supposed to be suffering from nervous disease—there was good evidence why the attacks should be considered nervous in large measure—on examining her carefully, I found the cardiac impulse displaced and the pulse altered in character, and I thought it was probably angina; and so it turned out to be, for three weeks after she was seized with a bad attack and died straight off.

Next, as regards associated morbid changes, I will enumerate some of the most obvious:—

1. Disease of the aortic valves.—So that you may find a ringing second sound during life, or definite evidence of aortic regurgitation, and—

2. Atheroma of the first part of the aorta; both of which are associated with diseases of the coronary arteries, which tends to interfere with the integrity of the circulation through the arteries in the heart walls. Calcification of the coronary arteries is sometimes found in angina cases; you may class these two conditions together as regards physical signs.

3. Dilatation of the left ventricle from renal or aortic disease.—Angina is but rarely found in the ventrical dilatation due to mitral disease; but it seems to me to be not so much a question of the dilatation as of the condition under which the dilatation occurred; there is a difference between the dilatation of mitral disease and that of aortic and renal disease. In mitral trouble the ventricle gets into a flabby state, owing to its being worried by the irregular distribution of the blood in it, but the supply to the muscle itself is fair; but in the other conditions, the muscle is badly supplied, and overworked also. Dilatation of the right ventricle is found sometimes but very much less frequently; I have seen two cases; one was a medical man, an old Guy's student, who suffered from an attack of pleurisy, got fairly well, but ever after remained blue, wheezy, and asthmatic, he spent several winters abroad, and to the last he had very evident disease of his right base, the remains of his old pleurisy—and in passing let me remark that of cases of simple pleurisy the majority do well, but some don't, they get some portion of the way towards recovery, but always after that remain bronchitic and habitually blue, it must be recognized as one of the risks of pleurisy, one not often occurring, it is true, but signifying that the lung has somehow got out of gear, and become more or less generally emphysematous. As a result of this affection the patient got dilatation of the right heart and angina; it was looked on by some as mitral regurgitation, but this, I believe, was due to the right side of the heart appearing towards the apex, and thus a tricuspid bruit was mistaken for a mitral murmur. Well, this man got worse and worse, he was a confirmed old batchelor and used to dine always at his club, and he complained that he was apt to be pulled up on the way by a nasty grinding pain behind the sternum. Unfortunately, when he died, there was no post-mortem, and I could not find out if I was right or not.

Other conditions you may find associated with angina, are occasionally pericarditis, and occasionally adherent pericardium.

One of the worst cases I ever saw was in Lazarus; how he got on to the surgical side I don't remember, he suffered from severe pain

in his chest, and in the course of a few days he died, and we found an aneurysm of the first part of the aorta just above the valves which had ruptured into the cellular tissue beneath the pericardium; the bleeding had thus been limited and had doubtless been going on some time.

Another case I remember seeing, was a very bad one: a perfectly healthy man woke up one morning in great pain; I saw him with his doctor about seven o'clock; his pulse was exceedingly rapid and he was evidently in a dying condition; the only diagnosis I could suggest was that he had an atheromatous patch in his aorta which had given way and produced a dissecting aneurysm; but this was merely a guess: he went on getting better and worse for two or three days when he died, and at the autopsy we could find no evidence of atheroma, but the aorta was split in its first part and the blood had been effused into the cellular tissue and had spread down all over the surface of the heart. All these conditions I have mentioned are associated with physical signs, but there are others that are not; for instance, calcification of the coronary arteries. In some people these wear out early, their lumen becomes diminished; the disease is rapidly fatal and yet presents no physical signs at all.

Again, a state of fatty degeneration of the muscle of the heart may sometimes be associated with angina. This is a condition most difficult to diagnose, the only people who can diagnose it with certainty being coroner's juries; but many medical men speak too confidently of its presence, relying on the following points—the first indication they look for is a weak first sound, but I can easily prove that that is no aid whatever; it depends very largely on the chest, the thickness of its walls, the distance of the heart from the surface: the sounds may be damped by a large area of lung intervening as in emphysema. Another supposed indication is a feeble pulse, but this again is no good; some even say that a feeble pulse is a sign of longevity, but, apart from that, the state of the pulse depends not so much on the heart, as it is controlled by the condition of the arteries, whether these are relaxed or contracted; taken in conjunction with other signs, a weak pulse may mean a good deal, but taken by itself, it signifies nothing whatever.

The only thing I know which might enable one to diagnose it with any confidence is the history, in old people of sixty or seventy, of sudden attacks of pain and slow pulse, and sometimes fainting and evidences of dilatation. Post-mortem evidence has shown that such conditions may be associated with the possession of a fatty heart; at times, according to my experience, fatty degeneration of the muscle has come on suddenly accompanied by sudden dilatation; I do not mean simply fatty accumulation upon the outer surface, but where, when you cut open the heart, you find the wall thin and friable, and the microscope reveals the presence of a fatty degeneration.

Lastly, there are cases in which not only are there no physical signs, but also no morbid anatomy.

As to the pathology of angina, we don't know much; of some conditions occasionally associated with angina one does know, such as a state of high tension as that due to renal disease where in consequence of the tension, the left ventrical hypertrophies and dilates; it is quite possible that the pathology of these cases may be explained by the excessive tension of the heart muscle; the difficulty is that angina so seldom occurs in association with cases of this kind in only quite a small proportion. I may say in reference to this state of high tension, that the statement is made that in most cases of angina the pulse is one of high tension, and it was the recognition of this feature that led Lauder Brunton to give amyl nitrite to reduce the tension, and very satisfactory results have ensued from its use, and it is most successful in relieving the pain, but I expect that the particular case which he was observing at this time was one of renal disease, or of aortic regurgitation. Of all the cases a great proportion have no high tension, in fact, it is seldom that one feels a real high tension pulse in angina. If you are fortunate enough, or perhaps I should say unfortunate enough, to see a bad attack of angina, and you keep your hand on the pulse during the attack, you will find, as I have found, that there is very little alteration of the pulse, it may quicken up to 70 or 80, it will probably become small and feeble, and it will only exceptionally be hard and full. Therefore, my impression is that these remedies, if they act partly by relieving high tension, act more by relieving the neuralgic condition, or cramp of the heart muscle. High tension of the vascular system and a neuralgic condition or cramp of the heart muscle, are two theories of the cause of angina, and some hold to one and some to another. Against the cramp theory, however, is the fact that you cannot find any alteration of the pulse during the attack; in a true cramp it is difficult to understand how the heart could keep going, the pulse, one would suppose, would

go altogether. At the same time I am not sure that the muscle of the heart always beats as synchronously as we take it to do. When I have been drinking tea late at night I have sometimes found the heart's impulse vary as much as two inches in as many beats. No doubt fibrillary contractions take place in the heart as they do in other muscles.

Then there is the neuralgic theory. The present generation wants facts, and is very chary of accepting these newer theories where one can find no morbid change. I once had an epileptic who used to have fearful cramps all down the side of one arm and hand, and absolutely no local change was found to explain it. Angina is certainly epileptiform in this, that it comes and goes fitfully in that manifest disease. An analogy may be drawn between the neuralgic character of angina and the fearful epigastric pain which gives rise to the so-called "gastric crisis" in locomotor ataxy. In a bad tabetic crisis, as you know, the patient is cold and in a state of collapse, like a patient with a perforation of the intestine, but it all passes off. Then again, in the various forms of gouty stomach pains; "the gout in the stomach" of the old practitioners. I am not sure whether some are not cases of true angina.

Here is a case I have noted down in which a lady aged 46 had a first and sudden attack of pain in the chest which shot down her arms as far as the elbow, chiefly on the left side; since then she has had rather frequent attacks. There is no connection of the pain with the taking of food, or with exercise. She takes the latter freely—bicycling and walking a good deal. She dates her first attack from a dose of calomel. She was sent up to me with a note from the doctor under whose care she was, suggesting that it was a case of gastralgia, and stating that she was a nervous but sensible woman who had arrived at the climacteric. She was under my care for two or three weeks, and I took the opportunity to examine her in bed. I could find little that was abnormal. The pain used to start under the right ribs, shoot up the sternum and down again the other side. The doctor who sent her up said he had tried everything he knew, but had failed to relieve her, and would be glad of my opinion. Well, the opinion that I had to give him was that I was not certain what was the matter, but I feared it was angina. She went home; and ten days after the doctor was hurriedly called, only to find that she had had a sudden attack, and had died. At the autopsy no morbid changes were detected; possibly, therefore, the case was purely neuralgic.

I must next say one word upon the varieties of angina. The usual classification is into "true" and "false," but that is a distinction between angina and a disease that is not angina, at any rate, between a disease that often destroys life and one that never does. False angina is a disease of young women chiefly, and is not serious. Be careful in your diagnosis of false angina over middle age. But there are within the range of a possibly pure angina, some varieties that may cause you a good deal of trouble, and in which, taking any individual case, you may never be quite sure whether you are dealing with the real thing or not. Such is the condition called sometimes angina vasomotoria. Here is such a case. A clergyman of very active habit, both mental and bodily, was out shooting and was seized with short breath and pain in his chest. Amyl nitrite was given him and he got well, and was free for a long time, but he had been bad again for some months before I saw him. It was particularly noticeable that worry or excitement would bring on the pain. I saw him at seven p.m. one evening, and during the half-hour or so in which I was with him he had several of his "attacks," in which he got very uneasy and restless, flushed up, and would exclaim: "Now I have it," "now it is very bad," and then in a second or two, "now I am quite well again." During the attack he flushed all over like a woman with climacteric flushes. I had my finger on the pulse all the time; it may have quickened from 80 to 90, but there was no alteration. It was not a hard pulse, and as regards the heart sounds I am confident that an insurance officer would pass his heart as sound. He got great relief from the use of dynamite, but more from a long voyage and change of scene and thought, and he has remained fairly well ever since. He has recurrences from time to time, but he is, as a rule, well.

I believe this to be a case of *true* angina, but such is his nervous state, so like is his flushing to the climacteric in women, and so evident is his neurotic temperament, that I confess to not being absolutely sure. Similar cases are not uncommon.

Well, then, Osler describes an *angina sine dolore*, and the case from which we set out was one. He had distress in his chest, and oppression, but no marked pain, and allowing such a case to be angina, there are not a few that may come under this denomination. There is many

a case of renal disease, for example, in which in the late stage there is a frequent breathlessness, and distress in breathing, and a condition by no means so very unlike the last stage of angina, although without the pain that is so characteristic in general. Some of the phenomena of some cases of aortic regurgitation are practically those of angina sine dolore, there is the sudden onset of an indescribable distress, and often a sudden flush such as there is in many a case of angina; a condition coming and going, that in its contrasts between ease and misery, keeps the patient in a perpetual sense of dread in part lest the ease should even now be going to give place to an attack; and in part to the sense of impending dissolution that is one of the worst features of the attack.

The varieties of angina naturally suggest the prognosis of the disease, and from the consideration of the former it will be not unsuspected that the latter is no easy problem. In the matter of pseudo-angina you will be quite safe if in a patient under 35, and without any physical signs of heart disease, you bid the patient or her friends put away fear, and tell them that he or she will certainly get well. After middle age you must be very careful, or you may speak cheerily to the friends one day, only to find that on the next an attack has come on, and the patient has died. Angina is said to be much more common in men than in women, and this may be so, but it will not do to bring this distinction much into the front in prognosis, for it is quite common enough in women, and I can call to mind at least six cases in women as I speak, and four of them I know to have been fatal. Only a few days ago I saw a lady whom I had known as the subject of occasional attacks of angina for some four or five years, and lately, as the outcome of nothing in particular, she had been more troubled, but I could not find any additional reason for anxiety, so I told her she seemed to be wearing well, and that there was no reason why she should not go on. I saw her death in the paper a few days afterwards as having occurred from angina pectoris.

This case will serve to emphasize Latham's prognosis that there is only one; recurrence and eventual death, the duration being long. I am not, however, inclined to take quite so gloomy a view of the disease as that. At any rate, I know of cases that have, so far as I can tell, recovered, and have been alive after ten years. I know of several others where the disease in mild, but still unmistakable, form, has existed many years, and, although a distinct handicap to life, has not seemed to do the man any harm. One of these I have in mind now who comes to see me once a year or so, who looks the picture of health, but when I say: "Well! how is the pain?" he always replies "Oh! it is there you know," and then he proceeds to unfold to me the hundred and one vagaries of the cause of onset of the pain, how he can do this and that, perhaps involving a fair amount of exertion, and gets no pain; and does other things involving not half as much, and on it comes. Therefore, I say, although admittedly it is a most treacherous disease, and you may be caught napping when perhaps you least expect it, nevertheless there are a large number of the milder cases where the disease goes on a very long time and does not seem to do any harm. I wish I could tell you how to distinguish the several cases, but, alas! I cannot tell myself.

There is little time left for the consideration of treatment. But I must say this, I am firmly convinced that some of these cases are of the nature of a gouty neuralgia, therefore do what you can in any case to single out the possible faults in diet and daily hygiene that you may think need remedy. Don't go at your patient like a parrot, and repeat formulæ, "You must not take any sugar." "You must not drink champagne," etc., but go into the man's life and give it a little original thought. Help him, if you can—it is difficult enough to strike the right vein in matters of this kind—to consider the matter of diet and life-regulation for himself. No doubt you will be able to help some, and don't forget, I pray you, that for one case of gout that comes before you, that is the gout of surfeit, there are dozens in the present day that have the gout of anxiety, at least that is my experience.

Of drugs, when an attack is on, and severe, nitrite of amyl acts most speedily, and is most generally useful. It will not infrequently fail. Morphia is largely in demand for the same class of cases, and no doubt it will help greatly. But I have seen it sometimes do harm, for I have seen morphia given sometimes in very large doses without any appreciable relief of the pain, and where I have thought that some of the collapse and algidity may have been due to the drug. I should advise you when you use morphia to give a full dose, but not to go on adding dose to dose when it appears to have little effect upon the pain. If there be time nitroglycerine is of undoubted use. Bear in mind that it is a drug that some are very tolerant of, and in the headache that it causes when it acts we have some measure of the quantity required

to produce in any individual the physiological effect. In some this may be $\frac{1}{100}$ minim, or $\frac{1}{50}$ or more. Some have said six or seven minims, but I have never given so large a dose as this. Nitrate of sodium is also useful and is made into tabloids as in the nitro-glycerine, and is therefore easy of administration. Belladonna is another drug that has its uses, and for special cases, strychnia, digitalis and strophanthus, but all these want careful watching, for they are by no means harmless, if not useful.

Besides these—shall I call them—special remedies, there are the more general remedies for the reduction of tension, "alteratives" shall we call them, if you know what that means, I don't. Anyhow, I allude to blue pill, iodide of potassium, etc. These are most valuable drugs in this class of cases, so don't forget them in your search after novelty. For some drug that shall have a lasting influence in putting and keeping a patient upon a platform above the level of his disease, there are few better then arsenic.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Circulatory System.

Philip	8.	Aortic regurgitation.
	16.	Pericarditis.
	28.	Mitral and tricuspid incompetence after rheumatism.
	39.	Rheumatism. Aortic disease. ? Pericarditis.
Stephen	2.	Aortic aneurysm.
	8.	Hypertrophied and dilated heart.
	11, 17.	Mitral regurgitation.
	26.	Mitral stenosis and regurgitation.
Mary	33.	Mitral stenosis and regurgitation. Tricuspid regurgitation after rheumatism.
	35.	Aortic incompetence and obstruction.
	38.	Morbus cordis. Pericarditis.

Nervous System.

Philip	31.	Chorea after rheumatism.
Stephen	7.	? Jacksonian epilepsy.
	10.	Post-hemiplegic chorea.
	19.	Amyotrophic lateral sclerosis.
	28.	Locomotor ataxy. Motor aphasia.
Mary	30.	Acute myelitis.

Alimentary System.

Philip	2.	Hepatic tumour ? Growth.
	4.	Tumour in region of cæcum.
	7.	? Typhoid.
	9.	? Typhoid. ? Influenza.
	33.	Carcinoma ventriculi.
Stephen	3.	Recurrent appendicitis.
	5.	Typhoid.
	23.	Pancreatic cyst. Operation.
	30.	? Cirrhosis. Ascites. Heart.
	34.	Appendicitis.
	35.	Chronic peritonitis. ? Malignant. ? Cirrhosis.
	40.	Carcinoma ventriculi.
Mary	1.	Œsophageal stricture.
	5.	Ascites. Movable abdominal tumour. ? Ovarian.
	6.	Ascites. Cirrhosis. Peripheral neuritis commencing.
	9.	? Appendicitis.
	15.	Tuberculous peritonitis.
	18.	Typhoid.
	32.	Cirrhosis of liver. Peripheral neuritis. Phthisis.
	37.	Ovarian tumour. Operation.
	40.	Enlarged liver.
	46.	? Tubercular peritonitis.

Genito-Urinary System.

Philip	21.	Chronic Bright. Albuminuric retinitis.
Stephen	16.	Acute nephritis.
	24.	Chronic interstitial nephritis. Albuminuric retinitis. Emphysema.
Mary	8.	Acute tubal nephritis.
	11.	Subacute tubal nephritis.
	36.	Acute nephritis.

Respiratory System.

Philip	12.	Double pneumonia. Right pleuritic effusion.
	27.	Tuberculous laryngitis. Phthisis.
	38.	Phthisis.
Stephen	4.	Enlargement of mediastinal glands. Pressure on bronchus. Phthisis. Pigmentation of skin.
	13.	Bronchitis and emphysema. Aortic regurgitation.
	15.	Tuberculous laryngitis.
	21.	Phthisis.
	37.	Pleuritic effusion. Dilated heart.
Mary	2.	Pyrexia. Pneumonia. ? Apical.
	13.	Bronchiectasis.
	45.	Lobar pneumonia.
	34, 48, 49.	Phthisis.

Miscellaneous.

Philip	10.	Psoriasis.
	30.	Tuberculosis and basal meningitis.
	36.	Scrofulodermia. Tabes mesenterica.
	39.	Acute rheumatism. Aortic disease. ? Pericarditis.

Stephen 9. Acute rheumatism.
25. Diabetes. Phthisis.
31. Melanotic sarcomata. Primary right foot.
32. General tuberculosis.
36. Erythema nodosum.
Mary 3. Acute rheumatism. Mitral constriction and regurgitation. ? Aortic regurgitation.
7, 19. Acute rheumatism. Mitral regurgitation.
12. Exophthalmic goître.
23. Diabetes mellitus.
26. Acute tonsillitis. Suppurating gland.
29. Pityriasis rubra.
39. Chlorosis.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman 1. Cellulitis of leg. Septicæmia and death.
3. Hydrothorax. ? Following subdiaphragmatic abscess. Laparotomy, no abscess found.
5. (Transferred to Philip P. R.) Gall-stones and cancer of liver. Exploratory laparotomy.
18. Osteitis of tibia following fracture.
19. Phlebitis of varix.
Charity 9. Irreducible umbilical hernia.
10. Nævus of gum.
11. Tuberculous hip.
18. Adenoma mammæ. Excised.

Cases under Mr. Davies-Colley.

Luke 10. Stricture.
20. Tuberculous hip.
Lydia 8. Submaxillary gland, retention cyst.
19. Tuberculous hip. Old lupus of face.
Cornelius 15. Linear fracture of vertex. Hemiplegia. Trephining. No hæmorrhage found.

Cases under Mr. Lucas.

Job 3. ? Epithelioma of tongue. ? Gumma.
5. Growth of cæcum. ? Perityphlitis.
8. Malignant glands in neck. ? Situation of primary growth.
16. Stricture with extravasation.
21. Malignant glands in neck.
23. Growth of œsophagus.
25. Iliopsoas bursa affected with osteophytes. Removed.
Lydia 10. Moveable kidney.
13. Strangulated femoral hernia. Kelotomy. Gangrene of gut. Resection. Death.
16. Fractured neck of femur. ? Intracapsular.
Cot C. Fractured base.
Charity 1. Tuberculous hip with abscess.
2. Necrosis of ilium. Gluteal abscess.
Charity 5. Caries of ribs with abscess.
Cot B. Tuberculous tenosynovitis of wrist.
Astley Cooper 9, 25. Fractured patella.
14. Ruptured urethra. Explored. ? Also ruptured bladder.
17. Separated lower epiphysis of tibia.
26. Hæmato-myelia. General paresis of legs.
27. Cut-throat.

Cases under Mr. Golding-Bird.

Lazarus 4. Recurrent hydrocele after injected twice. Radical cure.
5. Tuberculous testes. Castration.
6. Strangulated inguinal hernia. Kelotomy.
11. Fungating growth in neck. ? Primary pharynx.
13. Stricture. Dilatation.
19. Incarcerated inguinal hernia. Radical cure.
Martha 1. Mucous cyst of cheek. Excised.
2. Subungual exostosis. Shaved off.
9. Fractured base.
17. Run over. Ruptured liver. Death.
18. Ruptured eyeball from hæmorrhage into eye. ? Secondary to growth. Enucleation.
19. Chronic diffuse mastitis following pregnancy.
23. Spina bifida. Trophic ulceration of legs. Paraplegia with talipes. Hydrocephalous. ? Following treatment of spina bifida by injection.
Astley Cooper 6. Epistaxis, severe, with hæmatemesis. ? Fractured base.

Cases under Mr. Jacobson.

Naaman 20. Epithelioma linguæ. Whitehead's operation.
22. Epithelioma of lip. Excised.

Cases under Mr. Symonds.

Martha 10. Gall-stones.
15. Rodent ulcer of cheek. Excised.

Cases under Mr. Lane.

Lydia 13. Growth in transverse colon. Right inguinal colotomy.
Job 13. Recurrent appendicitis. Removal of appendix.
Samaritan 8. Growth on buttock. ? Epithelioma following ? gumma (latter of forty years' duration). Excised.
9. Cellulitis of neck. Septicæmia.

Cases under Mr. Dunn.

Lazarus 2. Rectal appendicitis. Removal.
3. Hæmatoma of abdominal wall ? after lacerated kidney. Incised.
Martha 10. Carcinoma mammæ.
11. Nocturnal incontinence.

"Clinical."

1. Peshawur fever.
5. Pneumonia.
6. Mediastinal tumour. Pressure on superior vena cava. Rupture of abscess into the œsophagus.
7. Sarcoma in abdomen. ? Origin. Dilated stomach.
10. Empyema. Albuminuria.
11. Sub-acute Bright.
12. Diabetes mellitus.
16. Cerebro-spinal meningitis.
18. Hepatic cyst. Operation.
20. Mitral stenosis and regurgitation. Pulmonary regurgitation.
26. Perforated gastric ulcer. Operation. Recovery.
27. Sub-acute tubal nephritis.
28. Perihepatitis. Abscesses.
29. Gärtner's disease.
30. Pleuritic effusion. Pneumonia.
31. Infective endocarditis.

Viva Voce.

(*Concluded.*)

CLINICAL SURGERY.

C. Was taken to a patient, æt. 28, and told he would have five minutes to examine him. When asked what he complained of patient showed a pediculated tumour, situate just above his left great trochanter. Next, for another five minutes *C.* was taken to a lad of 17, with a pulsating swelling just above his right brow. Patient gave a history of falling on it twelve months since, six months before tumour was noticed.

E. asked for diagnosis of first case. *C.* said molluscum fibrosum.

E. Do you really think so?

C. Well, it is either that or a papilloma.

E. Why not a papilloma? Is it fixed to deep parts? Are there any glands? Where did you feel for glands? Where would you have felt if it had been on abdominal wall? What would your treatment be? After you had removed it what would you do with it? Where would you cut a section? What would your section look like? How would it differ if it was an epithelioma? What is your diagnosis of other case?

C. Cirsoid aneurysm.

E. Do you really think so?

C. Yes.

E. Why? Did you compress the anterior branch of superficial temporal? What effect did it have on the tumour? What else could it be? Why do you not think it a diffuse aneurysm? Why not a sacculated aneurysm? How might the fall have caused an aneurysm? What would the effect of the bruise have been? What do you mean by the wall becoming corroded? Why don't you say softened by inflammation? What is your treatment? Why pressure first? What would be the danger of pressure? Have you seen one treated by pressure? Look at this patient (a man about fifty-five, deaf, with two sinuses and a fluctuating spot over the sternum, and a swelling on the lower part of left arm.) Diagnosis specific.

E. What do you mean by specific? Come, do you really think so?

C. If it is not syphilitic I do not know what it is?

E. Point out characters that make you think so? Yes, you are quite right; what is your treatment?

C. Pot. Iod.

E. What do you mean? What dose would you give? Now look at this patient, a man with unilateral scrotal swelling. Why are you feeling there? What would you gain by localising the cord? Do you make an impulse on coughing? What else will you do?

C. asked for a candle.

E. Let me see how you are going to test translucency. Don't you think your thumb is in the way? Well, I have not seen patient so let me try, it is certainly not an easy case; no, I cannot get translucency. Now, you help me, and we will try another way, how now? Diagnosis—hydrocele. What would you do for it?

C. then asked patient his age (61) and if it was any hindrance to his work (no) and said, I should tap it, and if it recurred, and patient wanted something else done should inject it with Carbolic or Tinct. of Iodine. Should not do radical cure.

E. Which would cause the most pain? Now look at this patient, a man who had a tumour just below his ear. After examining tumour *C.* wanted to look at patient's throat, and asked for a light.

E. What do you think the tumour is?

C. Secondary epithelioma in the cervical glands.

E. Don't you think it might be something else?

C. I should like to examine patient's throat before considering anything else.

E. What do you expect to find? Where do you expect growth to be? What do you think are the characters of the growth? You cannot see, would you like to feel, then after a consultation between examiners, *E.* said, taking *C.* away—You are quite right, there is a growth in the upper part of his pharynx. What would you do for him?

C. suggested palliative treatment, with narcotics, when pain became bad.

E. Now look at this child, do you think that swelling is a secondary growth?

C. No, I think it is an enlarged gland.

E. What is the cause of the enlargement?

C. From the history and condition exclude tubercle and septic infection, and the *E.* said he did not know.

E. You are quite right, it cannot be tubercle or inflammatory. What are the causes of enlarged glands?

C. Lymphadenoma.

E. Well, why not?

C. There is only one gland, and it has been there two years.

E. Well, I think it is lymphadenoma. What would you do for it?

C. Remove it.

E. You have done very well. *Bell.*

C. was taken to a man on a couch, and told to map out skin incisions in Syme's operation on foot.

E. What is your starting point? Where do you end? What did Syme describe? Where is the ankle joint? Into what joint would you be likely to go if you cut directly downwards on your ant. line? For what would you do this operation? What is it necessary that you must have. (*E.* wanted sound skin on the heel, *C.* suggested several things before this). How would you proceed with this operation? On what does the nutrition of your flap depend? What are they branches of? When would you not be content with only cutting off the malleoli? What is that? (Int. Saphenous vein). Mark out its course. Where is the tendon of the biceps? To what is it attached? Where is the head of the fibula? What lies close to the tendon of the biceps? Where does it go? What is the course of the musculo cutaneous branch? What muscles does it supply? What part of the skin is supplied by it? What supplies the first cleft? What is that a branch of? Put a bandage on the knee. What do you know about the palma bursar of the hand? Point out the level of the wrist on the ant. surface? How much above it does the bursar go? Where do the bursæ of the other fingers end? What nerve supplies the skin here? (supra trochlear). What is it a branch of? What here? (nasal). What is it a branch of? What is the course of the nasal nerve? Yes, do you still think it is a branch of second division of fifth? Perhaps you would like to look at some instruments? What is this? (lithotrite). For what is it used? In what position would you place your patient? Would it not be well to raise the pelvis? Why? How would you pass this? What about the state of the bladder? How would you use it when you had passed it into bladder? What is this? Supra pubic trocar and canula. What is this? Trocar and canula for rectal aspiration of bladder. When would you use either of these? Which operation would you do? Why?

Bell.

SURGICAL PATHOLOGY.

E. Pick out a uric acid calculus? When do you think nucleus formed? What symptoms would a patient have with renal calculus? Why did you think your second specimen was a rectal polypus? What are the characters of a cylindrical celled carcinoma? Did you look at the base of your specimen? Well, it was a carcinoma. What is the usual structure of a rectal polypus? What is this specimen? (Obturator hernia.) What symptoms would it give? What special symptoms would it give if strangulated? What is pain in knee due to? Where would tenderness or fulness be? What skin lesions do you know of in tertiary syphilis? Yes, they are probably all gummatous; what special names have been given? What do you know about rupia? When does it come on? What is the character of the ulcer? If it is allowed to dry what occurs? How would you treat it? Would not you give mercury with the Pot. Iod. *Bell.*

E. handed to *C.* an os innominatum, with a large and deep acetabulum, asked to what it was due. Why do you think it Charcot's disease? Is there generally much lipping in Charcot's disease? If it is not Charcot's disease, what is it? What are the early changes in osteo arthritis? What happens to the bone under the articular cartilage? Is the head of this femur eburnated? What is the general course the disease takes? Do you ever get synostoses? You say the joint becomes fixed, what do you mean? What would you do for a patient? Is it a satisfactory disease to treat? How would you treat a patient with a Charcot's knee? What results should you try for? Is ankylosis the usual result. Do you think a man could work with a back splint on?

C. then suggested a Thomas, which is what *E.* wanted.

E. What is this specimen? (a testicle as large as a cocoa-nut, injected). To what do you think the enlargement due? What are the caseous areas? Is it anything like a tubercular testicle? What form of growth is it? Is carcinoma common in testicle? What do you know about cystic degeneration of testicle?

C. said he did not know anything.

E. What other organs undergo cystic degeneration? What are the characters of cystic degeneration of kidney? What do the cysts contain? What are the causes of perinæal abscesses? What sort of ruptures of urethra?

Bell.

Guy's Hospital Church Council.

A MEETING of the Church Council was held in the Court Room, on April 25th, the Rev. C. H. Bowden presiding.

On the motion of the chairman, seconded by Mr. F. E. Walker, Mr. Frank Shufflebotham was elected secretary.

The following bye-laws were passed:—

1. All meetings shall begin and end with prayer.
2. Five members of the Council to form a quorum.
3. If the voting upon any motion be equal, the chairman shall have a casting vote, in addition to his ordinary vote.
4. No resolution may be passed at any meeting unless a copy of it has been in the hands of all the members of the Council for the six days previous to the day of meeting.
5. Any subject connected with religious work in the hospital may be discussed at any meeting without previous notice.

The next meeting of the Council is fixed for June 6th.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

The Plague in India.

DEAR SIR,—You may think it worth using the enclosed cuttings *re* Dr. Samuel Prall, who was a student at the hospital about 1885–9. The cuttings are from the *Times of India*, published in Bombay on March 12th (weekly edition). The measures that have been taken by the British to stop the spread of plague have created a great deal of opposition on the part of the natives. On Wednesday, March 9th, there was a serious riot in which two Europeans were killed and many others seriously injured. The hospitals were attacked, and it was necessary to turn out the troops, land blue-jackets from the men-of-war in harbour, and get extra troops from Poona, by which you will gather that it was no simple street row. J. J. is the abreviation for Jamsetjee Jeejeebhoy, an eminent Parsee, after whom the chief hospital in Bombay is named.—I am, dear Sir, yours faithfully,

130, Princes Road, J. ERNEST NEVINS,
Liverpool, April 4th, 1898.

THE ATTACK ON THE J. J. HOSPITAL.

"On Wednesday afternoon, while the riot was in progress at Ripon Road and at Bellasis Road, a mob of Mahomedans prepared to attack the J. J. Hospital, when Surgeon-Captain Prall, one of the Surgeons of the Hospital, noticing that the rioters were bent on attacking the European and Eurasian students, and were trying to enter the Hospital compound, called all the students together, and standing with a rifle in his hand prevented the mob from affecting an entrance. He then sent several Parsee students across to the Baboola Tank Fire Brigade Station, with instructions to send a telephonic message to the military authorities informing them of the intended attack, and on the arrival of the military the rioters dispersed. Dr. Prall, with others, escorted the students through the mob to their residences. On witnessing a brutal assault being committed on a soldier named Evans, Dr. Prall, in company with several students, proceeded to the spot where the soldier was lying and brought him into the Hospital. Evans, who was then unconscious and bleeding profusely from his wounds, died shortly after admission.

Another account says:—"A body of rioters also threatened to invade the J. J. Hospital to wreak vengeance on some students, but the bold front shown by Surgeon-Captain Prall and a party of students kept them at bay until military assistance arrived."

Two letters are unavoidably held over till our next issue.

The Reigate and Redhill Cot.

THE sympathies of Reigate and Redhill were first enlisted on behalf of Guy's about two years ago, when a few Guy's students residing there raised over twenty pounds by Christmas carol singing. Last year a concert was given, and a sufficient sum was raised to support a cot for one year. Owing to the fact that the chief workers in the cause have now left the neighbourhood, the future of the cot fund seemed for a time in danger; but others have been found to continue the work.

Mr. Johnston, of Redhill, has given, through W. B. Hope, a subscription of ten guineas. A most industrious and enthusiastic young lady, Miss Girtton, has raised £8 by a subscription-card; and, in addition to other subscriptions, a "Mrs. Jarley's Waxworks" entertainment was given at the Market Hall, Redhill, on Monday, April 25th, in aid of the fund. The entertainment was organised almost entirely by Miss Bourne, sister of H. J. Bourne, who has not long left us at the hospital; and, thanks to her energy and ingenuity, it was a splendid success in every respect. A large number of ladies and gentlemen took part in the waxworks; a great originality was displayed in the costumes and in the posing. We understand that the proceeds, with all expenses paid, amount to £58, so that by the labour of some and by the generosity of others, the sustenance of the cot is guaranteed for some time.

Notice.

Medical Department of the Navy,
Admiralty,
Northumberland Avenue, W.C.,
18th April, 1898.

An Examination of Candidates for entry into the Medical Department of the Royal Navy will be held on the 16th May next and following days at Examination Hall, Thames Embankment.

Twenty Commissions, as Surgeons, will be offered for competition.

The forms to be filled up by Candidates will be supplied *on application to this Department.*

H. F. NORBURY,
Medical Director General.

Papers by Guy's Men.

On the Production of Sugar in the Liver, and its Utilisation in the Tissues. A reply. By F. W. Pavy, M.D., F.R.S.

Cardiac Peristalsis: its Nature and Effects. By D. W. Samways, M.A., M.D., B.C. Cantab., M.D. Paris, D.Sc. Lond.

Hereditary Keratosis, or Tylosis Palmæ. By Vaughan Pendred, M.B., F.R.C.S.

Passim.

Again it is our duty and pleasure to welcome most heartily all the new comers to our Hospital. We can only say, as we have said to all their predecessors, that we congratulate them, indeed, on their choice of a hospital, and hope that they will all make it henceforth one of their chief objects in life, to maintain and add to the reputation of the institution of which they have just become members. The field of work before them is unlimited, and the work itself is by no means light, but a good start is half the battle, and it usually works out that those who make best use of their early years at the hospital, are those who later achieve the greatest successes and occupy the unique posts of responsibility, that Guy's holds out to those who deserve them.

We publish to-day the first instalment of an abstract of Dr. Turner's Report on the Rinderpest, and its prevention by serum inoculation. Although, perhaps, the subject may seem a little out of place in London, we hope many will read it, as bearing, by analogy, on the serum treatment of disease, which is now such a well-established and important therapeutical measure. The paper is of double interest, too, as coming from a Guy's man, whose researches have proved of inestimable value to South Africa in combating the terrible ravages of that fell disease.

Since receiving the report above-mentioned, Dr. Turner, in a letter to us, says: "You will be pleased to learn that the method recommended has met with even more success than we anticipated. The veterinary department looked askance at it for physiological reasons, and I was sent to a clean area to operate on clean cattle which had never been exposed to the infection of rinderpest. I inoculated 183 and lost one old cow. On one farm 1,100 head were inoculated and three died. I have recently been to Buluwayo to start the inoculation stations in Rhodesia. They intend to make the inoculation, by the simultaneous injection of virulent blood and serum, obligatory, the animals being afterwards branded. I was at Ramaquabaan, living in a Kaffir hut for ten days, just to start them—fair place, only very feverish—no village and no white man nearer than ten miles. The 'Vet.' there has telegraphed to me that he has inoculated 656 animals and has lost twelve."

Dr. Turner goes on to say how all the "Vets." of the colony are jealous of his results, and he has considerable difficulty in getting statistics relating to results from the serum that he is making and sending out. Quite apart from the question of Rinderpest, but interesting as illustrating the enormous rate at which money may be made occasionally in Kimberley, is the last paragraph of his letter. He says, "I was in Hope Town the other day when the diamond mine was declared; I did not buy a 2s. 6d. claim, I wish I had. Any number between 1 and 200 sells for £200, the first few for £500. One 'Tottie' got No. 11, and was bemoaning the fact that he parted with it for 15s. Remember me to all my friends."

In connection with last year's Workmen's Compensation Act, a memorandum has recently been sent out from the Home Office which has some considerable interest for hospital surgeons. The Secretary of State proposes shortly "to appoint Medical referees under the above-mentioned Act, whose duties will be to act as advisers in medical matters of the committees, arbitrators, and county court judges, who are empowered to decide all questions arising in proceedings under the Act, and for this duty they will be paid by the Treasury." The memorandum goes on to state that it will only be in cases of doubt, and after the hearing of evidence by both sides that the Referee is to be called upon to make a report or attend the court if need be. The Referees are to be men of "independent position and of high standing in their profession," and should, moreover, have such experience of the class of questions arising as will enable them to decide with authority, points in which there may be divergence of medical evidence. Therefore, preference is to be given to those holding hospital appointments or having had other special opportunities of gaining wide experience of accidents and their consequences.

So that, presumably, House-Surgeons will under the new order, still as at present, be called upon for their evidence in ordinary cases, and it will only be in cases of exceptional difficulty that the Referees will be called upon to act. The scale of fees approved by the Treasury is: For the first reference, including examination and written report, two guineas; any subsequent statement in the same case, one guinea; for attendance on request of the judge or arbitrator, three guineas, and certain

allowances for travelling expenses. Applications for the appointments have to be sent in to the Home Secretary.

THE new regulation as to the times of duty, etc., for the nurses and the probationers have now been in operation for three months, and some opinion as to the working of the same can now be formed. The chief points of difference between the old and the new regulations are, that the average time on duty for any nurse is now reduced to nine hours a day. Head nurses are now allowed, once in every four weeks, to spend a Saturday and Sunday, or Sunday and Monday away from the hospital. The day nurses now have three quarters of an hour for dinner instead of half an hour, and night nurses have a comfortable meal in the dining hall.

BESIDES these regulations which bear on the actual time on duty, there are others affording greater facilities to each nurse to attend any place of worship she may desire; and extending the trial period for probationers from one to three months, obviously a better test of each candidate's capabilities. Of course, the great brunt of the work of inaugurating the new scheme and arranging the details thereof fell upon the Matron and Sisters, and the latter especially must, we imagine, have had a particularly hard time of it until things settled down somewhat; and even now the responsibility of so many more nurses in a ward, with the consequent numerous changes and variations, must, we feel sure, add considerably to the strain of work, already none too light. We only hope that they may prove equal to it. We hope, but we fear.

THE cricket season was duly inaugurated last Saturday with the usual match against Beckenham. The result was inconclusive owing to the inclemency of the weather. In the morning there were considerable doubts as to whether the match could be started at all, but it cleared up in the afternoon and some three hours' play was indulged in. Several of the new men showed up prominently, and although on paper the result was unsatisfactory, yet from our point of view it was far from being so.

Now that the cycle stable is just about ready for occupation and has been handed over to the students' club, we take the opportunity of thanking, on behalf of all the members of the club, Dr. Shaw and the house committee for the trouble they have taken in this matter. Those bringing machines to the hospital will now be relieved of the anxiety that they must necessarily feel when their iron steeds are left fully displayed and at the tender mercies of all passers by; and non-cyclists, too, will no longer be incommoded by the presence of obstructing bicycles at every turn.

OUR remarks addressed in our last issue to Clinical Assistants. on the subject of sending clinical matter to us for publication, has as yet had no result, but this is no doubt explicable by the fact that session had not then started, nor had the newly appointed then assumed their reins of office. At the risk of appearing importunate, we again appeal to them for records of the more interesting cases that come under their notice.

NOR have our efforts to induce the ventilation of opinions as to the house-appointments been any more successful. We cannot but regret the fact, for the subject appears to us to be extremely important, and well worthy of a few minutes' consideration. From what we have gathered during the past fortnight, opinion, originally adverse to the proposals appears now to be veering round the other way; men seem to be somewhat in favour of the arrangement, or else indifferent. For our own part we admit no change in our views on the subject. We still think that an alteration of the title of the new officials is distinctly called for. On the other hand, if, as we pointed out could happen, the net result of the new appointments is not to increase, or only very slightly to increase, the number of house appointments held by *different* men per annum. Then, we cannot see that any one will have cause to complain. If, however, the Appointment Committee see fit to fill up the vacancies every three months with six new men, then we cannot but feel that the future, from our point of view, will be doubtful and gloomy. Happily we have the assurance of one in authority that in all probability such will *not* be the case, and so we live in hope.

WITH a view to still further increasing our already noteworthy circulation, and in order to reach a class of readers which the GAZETTE cannot hope to attract on its own merits, our advertisement manager, whose belief in the beneficial effects of adverse criticism (as exemplified in Hall Caine's "Christian," Tibbles' Vi Cocoa, etc.) are firm and profound, has hit upon

the plan of subsidising at enormous expense, the editors of other well-known periodicals. Hence the numerous allusions to the Gazette in the current number of the *Guyoscope*.

Anyone wishing for a half-hour's quiet relaxation from ordinary reading, we would advise to try and get hold of a quaint little book called Primitive Physic, by the famous divine, John Wesley. We are often told nowadays that the present generation is woefully ignorant of the lives and methods of the shining lights of the surgical profession of days gone by, and in like manner our knowledge of early medicine is distinctly scanty. So the book, besides being intensely funny in parts, is interesting all through, as giving an idea of the ways and means of physicians in the early part of the 18th century. The editorial copy may be borrowed for the asking.

We must apologise to our readers for not having yet given them the promised photo of the Rugby team—the team that won the cup. It is not quite our fault though, for the photograph, though taken, turned out to be so unsatisfactory that the team intends, we believe, to be re-taken. That being so, we must crave the indulgence of our readers for a short time longer.

The Clinical Lectures this session will be given in the Anatomical Theatre. Those on Medicine, on Wednesdays at 1.30, by the following Physicians in order: Dr. Pitt (May), Dr. Washbourn (June), Dr. Shaw (July). Those on Surgery, on Fridays at 1.30, by Mr. Symonds, Mr. Jacobson, Mr. Lane and Mr. Dunn, each surgeon giving three lectures.

The Residents' Dance is to be held on Friday, June 10th, in the Governors' Court Room (by kind permission of the Committee). Mrs. Cosmo Bonsor has very kindly again consented to act the part of hostess, and receive the guests, and everything points to as successful a function as any of recent years. The price of the tickets will be as usual—gentleman's, 8s. 6d.; lady's, 6s. 6d.

Tickets for the Concert of the Nurses' Choral Society, on Tuesday, May 17th, can now be had of the librarian, price 2s. 6d. each.

The following Guy's men have recently proved successful at the M.D. examination of the University of Durham:—W. L. Chubb (Sandgate, Kent); W. Darley-Hartley (Cape Town, South Africa); Justin McCallum McCarthy (Shropshire); and S. W. K. Phillips (Brighton).

We beg to acknowledge with many thanks the receipt of 10s. from Dr. Hale White, 5s. from W. Gibson, Esq., and an anonymous 2s. 6d., towards the Betts' testimonial.

We hasten to correct a mistake that appeared in a Passim note in last issue with reference to Dr. Savage's Bethlem classes. They are on Tuesdays and Thursdays at 2 p.m., *not* Fridays at 3, as stated. There is no extra fee for the course.

Asepsis.

OPERATION GLOVES.

As regards the efforts for the improvement of asepsis, what particularly came under discussion at a meeting of continental surgeons, was the use at operations of disinfected gloves. Mikulicz, one of the first who availed himself of this means of protection for patient and operator, is giving a careful trial to disinfected cotton gloves. But the bacteriological tests reported by Döderlein of Tübingen, served to show that such gloves do not remain perfectly germ free. Absolute sterility is more perfectly attained with gloves of the thinnest gutta-percha, and these are accordingly being used by the majority of those surgeons who care to try such thorough-going means of protection.

Professor Wölfler, of Prague, a pupil of Billroth, uses with great advantage long leather gloves with gutta-percha fingers, disinfected in lysol. Many people may think such far-seeing precautions excessive, and there was found in the congress supporters of the "return to nature," *i.e.* simple disinfection of the hands with frequent washings during the operation. Meanwhile, distinguished surgeons assure us that the use of gloves for the better avoidance of wound infection, and for the protection of the surgeon, has undeniable advantages, and that the fear that certainty of touch, and with it delicacy of exploration and manipulation, might suffer is ungrounded.

F. O. S.

Acknowledgments.

The London Hospital Gazette, The St. Bartholomew's Hospital Journal, The Guyoscope, The Handbook on the Workmen's Compensation Act (by Morris-Robert Jones), The Journal of Balneology and Climatology, The Medical and Temperance Review, Treatment, The Clinical Journal, The Owens College Union Magazine, Floreamis (University College, Sheffield), The Hospital.

Rinderpest:

Its Pathology, and the means used to combat its Invasion of South Africa.

Abstract of the Annual Presidential Address to the Cape Town Branch of the British Medical Association, delivered by the Vice-President,

George Turner, M.B. (Cantab), M.R.C.S., D.P.H.
Medical Officer of Health for the Colony of the Cape of Good Hope; late Lecturer on Hygiene and Public Health at Guy's Hospital.

Rinderpest is undoubtedly a specific fever, highly infectious, which is naturally fatal to about 85 per cent. of the animals attacked.

A difference may be observed in the mortality, dependent upon the season of the year in which the herds are infected. Thus, in the warm weather, instances were not rare in which a large percentage of the animals, naturally infected, recovered from the disease.

The disease, when acquired in the natural manner from infection through the nasal mucus or the fæces, appears to have an incubation period of from four to five days. But when the animals are infected by means of an injection of virulent blood, and this blood has been passed from animal to animal, the period is much shortened; then the incubation period is more usually sixty hours, and, even in case of very virulent blood, forty-eight hours. On the other hand, when the smallest possible quantity is used to infect, about $\frac{1}{1000}$ c.c., the disease has a longer incubation period of thirteen days.

The first signs that the animal is infected are given by the thermometer; the temperature rises suddenly from 100 to 102°, its normal height to 105 or even 107°. Very often the first indication is not so much an absolute rise of temperature as an absence of the morning remission. Oxen very often have temperatures of 100 to 101° in the morning, and of 101 or 102° in the evening. When the fever is about to commence, the morning temperature may be found to be 101 or 102°, instead of 100 or 101°. On the afternoon of the same day the rise will be well marked. Sometimes—more rarely, however—a decided fall precedes the onset of the specific fever.

During the first few days of high temperature the animal may show absolutely no symptoms; it eats and chews the cud. The first symptoms visible are usually a disposition to lie down, cessation of eating and chewing the cud, the hair becomes rough, the nose dry, and the animal is evidently out of sorts. The teeth too, are ground together with a very audible noise, but this is hardly a diagnostic sign.

After four days' fever, other and more unmistakable symptoms appear; the eyes and nose run, the conjuctiva is red, there is diarrhœa, and a peculiar tremor may be noticed, especially of the muscles of the hind limbs. The discharges from the eyes and nose become thicker, the alvine discharges are offensive, and often consist chiefly of blood. There is much tenesmus, and the animal loses weight. The animal stands with its head and ears drooping, a pitiable object.

About the end of the seventh day of fever, sometimes later, the breathing becomes rapid, the animal is distressed, getting up and laying down again very frequently, and then a sudden fall in the temperature occurs. If the fall is much below normal, a fatal termination may be anticipated with much confidence; but I have seen animals rally even from this in a surprising manner.

The augury is more favourable if the temperature falls gradually. The animal then usually shows a disposition to eat, and there is hope of a recovery. At this time generally, however, a secondary fever commences, due to the intestinal lesions and septic infection. The animals may struggle against this for days and weeks, and recovery is always more or less doubtful.

When an animal appears likely to die in the stage of collapse, a subcutaneous injection of ether, 10, 20 or 30 c.c. at a time, will sometimes prove very effective. It cannot, of course, cure the fever, but it appears occasionally to get it over a bad quarter of an hour.

When the mouth is examined, aphthous ulcers may be found on the gums and lips, and the papillæ are of a light red colour; but these appearances, which seem to have been so common in the last English epidemic, were by no means universal or even common at Kimberley. Skin eruptions, also, have been absent.

On the other hand, I have seen a few animals which presented the phenomenon of emphysema over the loins during the later periods of the disease.

On post mortem, the lesions will vary very much, in accordance with the period of the disease during which death has occurred.

If the patient died in the primary fever, the lungs are usually healthy; if in the secondary fever and the respiration has been embarrassed, as it often is, they are emphysematous.

The heart is normal, except that small subserous extravasations of blood are often met with, usually between the ventricles or between the auricles and ventricles.

The liver, spleen, and kidneys in uncomplicated cases are normal, and the muscular tissue presents nothing unusual.

In the intestinal tract the first lesions are found in the fourth stomach. The mucous membrane of this organ is œdematous; it is distinctly inflamed, and generally of a plum colour, spotted here and there with red petechial spots denuded of epithelium, or even with small ulcers. Ulcers are commonly found at the pylorus, but how far they are specific and how far produced by the injestion of dry fodder into an inflamed stomach, I cannot say. In any case they are very usually present.

The whole of the intestinal tract from the duodenum to the rectum is inflamed. The inflammation is generally more marked just beyond the entrance of the bile duct into the gut, and at a place 18 inches or 2 feet beyond the ileocæcal valve, and again at the rectum.

The rectum, too, is usually the seat of one or two ulcers; but these, in my experience, have been confined to animals at the experimental station, and I suspect were caused by the incautious use of the thermometer.

Peyer's patches are thickened, denuded of epithelium, dotted with red spots, are sometimes ulcerated, and have adhering to them a greyish slough.

The gut occasionally, but very rarely, contains a complete cast of the bowel composed of fibrin and denuded epithelial cells.

The appearance produced by the inflammation is, of course, largely dependent on the distribution of the blood supply and the folds of the mucous membrane.

Thus, in the small intestine, it is striped across and is likened to the marks on a zebra, but in the cæcum and rectum the bowel looks as if it had been roughly scraped down longitudinally with a wide-toothed comb.

The mesentric glands are always enlarged, and look like a chain of sausages.

Although the liver, excluding cases of secondary infection, is normal, the gall bladder is with few exceptions inflamed, the mucous membrane is thick, and presents numerous small hæmorrhages: indeed, I have seen the contents of the gall-bladder to consist almost entirely of clotted blood.

The surface of the urinary bladder presents a similar appearance, but is usually not so well marked; the urine in the majority of cases is of a normal colour. The nasal mucous membrane is inflamed and of a dark plum colour.

We have in this description all the signs of an acute infectious fever, with which a specific organism is invariably associated as the prime cause.

Dr. Koch diligently searched for this organism in the blood, in the mucus both of the nose and the intestine, and also in the fæces, but he failed to satisfactorily identify any of the many organisms discovered as the one which gave rise to the specifie fever.

Both Dr. Kolle and I have examined the virulent blood on hundreds of occasions by various methods, but we have, so far, never been blessed with a glimpse of the living cause of the fever.

This in no way diminishes the certainty that the disease is due to a living virus. There are many well-known diseases which must be due to a living virus, but in which it has never yet been demonstrated to the sight—for example, typhus and measles. Of this there is no better example than small-pox. The pus from the disease and also vaccine lymph have been studied microscopically and bacteriologically for years and years; yet, though the presence of a contagium vivum is beyond reasonable dispute, it has never been made visible. In fact, no one as yet has seen the micro-organism of rinderpest, which very probably belongs not to the bacteria, but to some other group of micro-organism.

While prosecuting his search for the organism, Dr. Koch experimented with the fluids of the animals in several ways. He showed that as little as $\frac{1}{500}$ of a cubic centimetre of blood sufficed to infect an ox. The experiments performed since his departure show that the quantity required is even less, viz. $\frac{1}{1000}$ c.c., but in these instances the incubation stage was very long—thirteen days. He showed that, after drying, the blood and mucus was inert, that 0·5 per cent. of carbolic acid effectually killed the organism in blood, that the virus was incapable of retaining its virulence in the presence of glycerine. These experiments have been repeated, and Dr. Koch's opinions have been confirmed.

I shall speak further, at a future time, on Dr. Koch's work with serum. At present I wish to deal with the method which is inseparably connected with his name, and to which thousands of animals to-day owe their lives. I refer, of course, to the use of the bile.

When I joined Dr. Koch, I said to him, "I can understand how you were led to use a mixture of serum and virulent blood, but I cannot understand how you came to employ bile." He answered, "I was testing the virulence of the various fluids of the body, and, amongst others, used gall from an animal dead of rinderpest, fully expecting that it would communicate the disease. I injected 10 c.c. into an animal which was none the worse for the experiment; on the contrary, when it was subsequently inoculated with rinderpest blood, it resisted its action. I immediately tested the bile on six animals, and obtained a similar result."

This has been represented as an accidental discovery. In one sense it may be so described. It is the sort of accident which more usually occurs to those who carry out their investigations in a regular and methodical manner.

The fact that the bile immunised once established, it was put to a practical test, and, when used under the conditions laid down by its discoverer, it answered remarkably well.

The immunity conferred was evidently an active immunity, due to the presence of a living organism, because, when four animals were injected with 10 c.c. of the same sample of bile, and then two, four, six, and eight days later with virulent blood, those infected on the second and fourth days after the injection of the bile had the fever. The first died and the second recovered. The other two animals escaped entirely. Since then experiments we have made show that the immunity is not always complete even on the sixth day.

After the injection of the bile a swelling arises at the point of inoculation, which is hard and brawny to the feel. The animal is very stiff, and even unable to walk; but, unless the bile contains streptococci or other septic organisms, the swelling does not suppurate, and slowly subsides.

Koch's opinion as to the way in which the bile of a rinderpest animal acted was as follows:—The bile contained the organism in its full activity, but this activity was restrained by the presence in the bile of a chemical substance, probably of an albuminoid nature. The effect of such a bile was principally local, but at the same time it affected the whole system, much in the same way as vaccine lymph does with small-pox.

The Professor based his opinion upon the following experiments.

If 0·5 per cent. of phenol be added to rinderpest blood and be allowed to act during twenty-four hours, the blood is no longer virulent. Similarly, if the same proportion of phenol be added to rinderpest bile and the mixture be allowed to stand twenty-four hours, the animal infected with such a mixture is not protected.

But if to a sample of bile, in which the rinderpest organism has been destroyed by phenol, rinderpest blood be added, and injected at once, the protective power of the bile is restored, and the animals injected with such a mixture are immune.

Dr. Koch concluded that he had first, by the action of the phenol, removed an organism, and by the addition of the virulent blood, had introduced an organism; and as, in the second case, that organism was known to be the virulent rinderpest, he concluded that, as the effects were similar, the first was likewise virulent rinderpest.

This is the opinion I received directly from Dr. Koch. I wrote it down and read it over to him, to be sure that my notes were correct.

At first I accepted this view implicitly, but upon reflection it did not appear conclusive.

If phenol in the strength of only 0·5 per cent. had such a remarkable action upon the virus, in a fluid so full of organic matter as blood, as to destroy the organism in twenty-four hours, might it not exert an important action on the organism mixed with it in the bile although used at once or nearly at once. Because, although the injection was made soon after the addition of the phenol, yet the organism must have remained for some time in presence of the chemical in the cellular tissue, since it is not immediately absorbed.

I, therefore, tested the question in two ways. First, I put rinderpest gall into a Berkefeldt filter, and by means of an air-pump drew the fluid part into a receiver. The first receiver was then removed and a second substituted. The filter was then washed twice by passing normal sterile salt through it, so as to ensure the removal of all the fluid and soluble matters. The Berkefeldt filter was then surrounded with normal salt solution and scraped with a sterile spatula, in order to wash off any particles adhering to the filter. This fluid was collected in a test tube and examined microscopically. Nothing could be seen, except here and there a stray coccus, which was probably contained in the original bile. This filtrate was then injected into an ox (No. 204). As you see, there was no apparent result; but when, ten days later, it was injected with 0·2 c.c. of virulent blood, it withstood its action. Subsequently it was inoculated with greater doses, reaching to 4,000 c.c., and is used for serum purposes. It has already earned more than £200 by its blood, and is still well and strong.

The filtered bile, on the other hand, was injected into four beasts. They likewise exhibited no symptoms, but unlike the first ox, when injected with 0·2 c.c. of virulent blood, they all had the disease seriously, and two of them died. These last experiments have been repeated with a similar result. The filtered gall always fails to give more than a partial immunity. All animals treated with filtered gall, when subsequently tested, take the rinderpest, and half of them die.

This experiment tends to show that the organism in the rinderpest bile is a modified organism, and not one possessing full virulence, and that the filtered gall contains a substance in solution which has a certain feeble protective action.

I tested the question in another way. If the organisms in the bile were virulent organisms restrained by a chemical substance, then the injection of 10 c.c. of rinderpest gall directly into the venous circulation would have the effect of diluting the chemical substance to such an extent that, presumably, the organisms would be but little affected by it.

Accordingly, I laid bare the jugular vein of an ox, and introduced into it the needle of a clean Koch syringe which had been filled with normal salt solution. The salt was pumped into the circulation until it reached the zero mark, and then 10 c.c. of rinderpest gall were introduced into the syringe by means of a pipette. This, too, was driven into the vein, and lastly, the syringe was washed twice with normal salt solution. In this way the bile never came into contact with the cellular tissue, and no air entered the vein. The wound was washed with corrosive sublimate and sewed up with carbolised catgut. The animal never had a bad symptom, but it was not immune, because it subsequently succumbed to an injection of 0·2 c.c. of virulent blood.

This experiment led me to suspect that the blood itself had a certain restraining action on the organism, and I made two further experiments.

I shaved the ear of two animals over the aural vein; then, by means of a triangular flap, I laid bare the vein, and into it introduced the needle of a small hypodermic syringe. A plug of cotton wool, impregnated with bichloride of mercury, was pressed on the needle at its entry into the vein. The syringe was filled with normal salt. This was pumped in, and then 0·1 c.c. of virulent blood was introduced into the syringe by means of a pipette. This also was pumped in, and the syringe subsequently washed out twice with sterile salt solution, the whole well pressed up into the vein, and the wound washed with perchloride of mercury and stitched up. Two animals were experimented upon. One struggled when the blood was being injected, the needle escaped from the vein, and a few drops of blood and salt came on to the cellular tissue.

The fate of these two beasts was very different. That in which the blood touched the cellular tissue was attacked in due course and died; the other, in which the blood went entirely into the circulation, escaped. Nevertheless, the blood can only have a partially restraining action, since the virus is found in it in a state of great activity.

The animal which escaped the intravenous injection of a small dose of virulent blood was not naturally immune, because when I injected as much as 10 c.c

into the jugular, it took the disease and died. These experiments must be repeated.

I concluded from the experiments mentioned that the bile contained an organism, that the active immunising property of the bile is due to the action of this organism, and, lastly, that it is modified, and does not possess full virulence.

(To be continued).

Pass List.

University of Durham, April, 1898.

Examination for the Degree of Doctor in Medicine.
(Practitioners of 15 years' standing.)
J. M. McCarthy.

Examination for the Degree of Master in Surgery.
J. W. H. Eyre.

Examination for the Degree of Bachelor in Medicine.
J. Harris, A. M. Rygate, T. J. A. Tulk-Hart.

Examination for the Degree of Bachelor in Surgery.
J. Harris, T. J. A. Tulk-Hart.

Final Conjoint Examination, January, 1898.

Medicine, Surgery and Midwifery.—*J. A. Glover.

Medicine and Surgery.—*J. E. Dupiguy, Evan Evans, *P. W. Moore.

Medicine only.—*W. A. Fuller, *W. A. Horton, *W. J. Lindsay, A. W. Nourse, *H. D. Peile, *G. H. Steele, *A. H. Trevor.

Surgery only.—A. C. Ambrose, *S. E. Denyer, M. C. Hayward, *G. N. Mottram, *J. W. Sweetlove.

Midwifery only.—K. B. Alexander, H. J. M. D. S. Barker, H. P. W. Barrow, S. C. Clapham, E. S. Hall, F. H. R. Heath, L. Humphry, A. K. B. Kirkman, *F. W. Lee, A. D. Lewis, *C. R. Nicholson, C. D. Outred, S. B. C. C. A. Pennington, W. C. Pritchard, F. L. Rae, W. S. Richardson, R. J. Rowland, C. Shepherd, J. B. A. Treusch, H. S. Turner, *A. J. Wernet.

Second Conjoint Examination, April, 1898.

J. E. L. Bates, J. E. Collins, M. A. Collins, J. Evans, K. W. Goadby, A. C. H. Gray, G. S. C. Hayes, S. Hodgson, A. D. E. Kennard, H. K. Lacey, A. McCabe-Dallas, T. A. Matthews, B. Muir, S. J. Ormond, A. C. Osburn, L. Pern, S. L. Prall, H. G. Rashleigh, E. F. Reeve, R. S. Roper, L. E. Stamm, C. Tessier, G. T. Willan, F. E. Wilson.

First Conjoint Examination, April, 1898.

Part I.

Chemistry and Physics.—J. Bromley, F. W. Fawssett, I. S. Sheffield, F. J. Turner.

Part II.

Practical Pharmacy.—C. H. Bubb, P. P. Cole, L. Humphry, H. Simson, W. Murray Thomas, R. Tilbury, A. H. Turner.

Part III.

Elementary Biology.—C. M. Anthony, R. E. Brayne, W. H. Bush, L. O. Card, J. B. Copland, E. Couchman, H. A. Cutler, C. H. Denyer, E. Faulks, F. W. Fawssett, P. H. Furnivall, J. W. Gromitt, H. N. Grose, G. F. Hardy, H. Johnson, W. W. C. Jones, R. C. Lawry, F. B. Lowe, S. L. Pallant, H. T. Palmer, A. P. Piggot, W. W. Read, D. H. Richards, R. St. G. Seagrove, H. L. Shelton, T. M. Smith, M. C. Wetherell.

Final Conjoint Examination, April, 1898.

Medicine and Surgery.—*E. Ashby.

Medicine and Midwifery.—L. E. C. Handson, S. H. Mason.

Surgery and Midwifery.—W. K. Wills.

Medicine only.—*H. Bernard-Onraët, *S. C. Clapham, *E. S. Hall, J. Harris, *M. C. Hayward, F. E. Hutchinson, *F. J. Lidderdale, E. H. Milson, C. Shepherd.

Surgery only.—H. M. Berncastle, *Edward Evans, H. E. C. Fox, E. G. Goddard, *A. H. Godson, *E. D. Hancock, W. J. S. Harvey, F. H. R. Heath, G. Chetwode Owsley, H. Simson.

Midwifery only.—V. J. Crawford, H. W. Fox, J. E. Harper, J. Howells, T. H. W. Landon, W. C. Milward, J. E. H. Parsons, E. W. S. Rowland.

*Denotes completion of Examination.

Appointments.

NAVAL AND MILITARY.

Surgeon Percival M. May, R.N., has been appointed to the *Victory*.

Surgeon-Lieutenant R. E. G. Phillips, A.M.S., is attached to the Royal Horse Guards.

From the Gazette's Special Pathologist.

NOTICES.

H. E. W., Birchington-on-Sea.—A few tubercle bacilli are present in the sputum.

C. H. W., Midsomer, Norton.—The growth on the blood-serum after incubation consists of Klebs-Löffler bacilli and a few staphylococci.

H. B., Builth.—No tubercle bacilli could be found in this very watery sputum. There were in it hardly any cell elements.

H. L., Preston.—This specimen was quite pulverised on arrival, and nothing could be made of it.

E. F. C., Winchester.—The growth on the blood-serum after incubation consists of staphylococci and streptococci. No Klebs-Löffler bacilli could be found.

PATHOLOGIST.

Review.

Trewinnot of Guy's. A novel by Mrs. Coulson Kernahan. Published by John Long.

The medical student has so often been depicted in literature as a beer-drinking, rowdy, brutal creature, that it is a refreshing relief to find that Mrs. Kernahan has drawn Robert Trewinnot with a character that is a happy blend of light-hearted recklessness and a true sympathy with pain. He is no prude, but a manly, honest fellow, and one who has the sense withal to look at several ups and downs with the eyes of a philospher.

We are introduced to Trewinnot in the colonnade, where a would-be borrower is asking the loan of half-a-crown to get his "Bryant" out of pawn, but Robert himself is absolutely penniless. Indeed, he has to earn his next meal by entering into partnership with a quack—an honest quack, if such a mixture be possible—and by using his fine voice and eloquence to sell the "*elixir of life*" at "ninepence a bottle or fourteenpence for two. Now's the time and now's the hour." This partnership naturally leads Trewinnot into rather queer but distinctly entertaining society. In Mrs. Pippin (the quack's landlady) we have a character drawn with a rare appreciation of humour. The incident where she recaptures her "gambling, liquoring, betting, horse-racing, forsake-his-own" husband, is so well told that we give it.

"'Dear me!' said Dr. Weatherley Jones, who was seated beside his coachman in a neat little turn-out he sometimes used in preference to his grander equipage, 'what is the matter with you, Simpson? You'll run over that woman, to a dead certainty. What can the creature be thinking of?' The coachman's only answer was a choke. . . . . It now became evident to Dr. Jones that the coachman was the object of her interest. The agony of the man's countenance was extreme, as the blue-grey eyes looked fixedly at him, stern and searching, for all the smile upon the fat countenance. 'And don't he look a pretty piece of flesh,' at last broke out the lady, keeping close to the horses' heads, 'and don't his coat fit well, and don't he look twenty years younger with his whiskers all shaved off, ready to dink off with the first wench as has an evening out to match his'n? Don't his ornament look fine on his hat? And did his master promise him a fur cape for the winter to keep his poor shoulders warm.' . . . . 'I must drive on,' said Dr. Jones, whipping up the nearest horse. The woman moved from the front, and the carriage rattled away, amid roars of laughter from passers-by, which continued and increased, to the amazement of the doctor. He was driving himself, as the apathetic Saul had collapsed like a jelly, and was in dire need of an external skeleton to keep him in position. They were now in the very heart of Greenleaf Park, with its quaint gardens and Queen Anne houses. Here, too, the foot passengers turned and smiled curiously. By-and-by a butcher's boy emerged from a side gate, and cried out, 'How much for your stockin's, missis?' and on glancing over his shoulder the doctor saw, to his horror, that the women had clambered up behind and was sitting on the hanging shelf intended for the feet. Her hair, with its strange adornment, just reached the cushion. . . . The doctor drew rein and descended. 'Get down at once,' he said, peremptorily. 'I'm to get down, am I?' queried Mrs. Pippin. In spite of her corpulence, in spite of her years, she mounted with the agility of a cat, and climbing over the back of the front seat, ensconced herself in the doctor's place. Then, with an air of command, she took the reins, and whipping up the horses, said, 'I'm going to drive Saul home.'"

Robert's parentage is surrounded in mystery. Early in the story we learn that his aunt's lawyer is a man of fallen fortune, thoroughly knavish. His aim is to marry his daughter to Robert, and so improve his fortune. When, however, Robert refuses to hear of the match, Mr. Vowlett, the lawyer, influences the aunt to cut Trewinnot adrift. And so it comes about that Robert, in order to eke out his scant fortune, has to become dispenser to Dr. Trojan, at Peckham. Here he meets Sadie Martin, the attractive little heroine, and quickly falls in love with her, all unconscious that she is really Sadie Vowlett, who, finding out how her father is defrauding his clients, has taken a situation at Dr. Trojan's, under the assumed name of Martin. Poor little Sadie has to bear harsh, merciless indictments, spoken with a brutal ferociousness Robert certainly would not have used had he known he was speaking of her father.

"Take my word for it, Sadie," he said, "lawyers are always villians, especially Black-country lawyers, and they ought to be burned, and their families with them." Again, "If you won't marry me, I'll go and look out for that wretched lawyer's daughter that my aunt wanted me to marry. Did I ever tell you about it? She'll take me quick enough, for she'll know that a villain's daughter isn't likely to be asked twice." So sensitive of her father's frauds is her delicate nature, that when Robert tells his love she feels bound to refuse him.

When Trewinnot becomes dispenser to "Dr." Weatherley Jones, and golden-haired Daisy Jones falls in love with Robert, the story becomes too complicated to give an epitome worthy of the plot. Sadie's rival, Daisy, is inwardly vile, base and despicable, though outwardly fair, with childish blue eyes. The intense hatred we feel against Daisy speaks strongly for Mrs. Kernahan's art.

The ending of the story stands out in marked contrast to the opening. The tale is introduced in the light atmosphere of comedy, only to end in the heavy night of tragedy. In fact, the end will come rather as a shock to the kindly reader who likes to bid farewell to the chief characters under fair circumstances, and he will be inclined to wish there was no such exacting mistress as Art to demand such a mournful finish. Though hardly a great novel, "Trewinnot of Guy's" is interesting, and should be especially so to all Guy's men. J. A. H.

Novelties.

MATERIA MEDICA, PHARMACY, ETC.

BAYER'S PHARMACEUTICAL PRODUCTS.

We have received a number of samples of pharmaceutical products from the Elberfeld Farben Fabriken Co., Ltd., 19, St. Dunstan's Hill, E.C., the successors to the well-known chemical manufacturer, F. Bayer.

Some of these products such as salicylic acid, salol, sulphonal, phenacetine, and piperazine, are now so firmly established that comment upon them is unnecessary.

A step further towards the perfect hypnotic appears to have been made in trional and tetronal. According to the reports trional is preferred to sulphonal, because it produces sleep more quickly, and with smaller doses than the latter, and also on account of its freedom from disagreeable after effects. Tetronal is chemically related to sulphonal, it brings on sleep more quickly than trional, but the sleep is of shorter duration.

Tannigen (Di-acetyl-tannin) is a greyish white tasteless powder, insoluble in water. It is not dissolved in the stomach, but only on reaching the intestine. In chronic diarrhœa it is recommended as a valuable remedy. A further point in its favour is, that although acting like tannin, it produces no gastric disturbance.

Lycetol is a new uric acid solvent which possesses the advantages of permanency and agreeable taste.

Salophen contains 51 per cent. of salicylic acid, and has been introduced to replace salol on account of the ill effects thought to result from the elimination of phenol from the latter. It is unaffected by gastric juice but decomposed by pancreatic ferment It quickly removes pain and swelling in acute rheumatism, and has also some antifebrile effect.

Aristol, europhen, and losophan, are odourless substitutes for iodoform. Aristol is a reddish brown powder containing 45·8 per cent. of iodine, insoluble in water and glycerine, soluble in ether and oils. Europhen, a yellow amorphous powder containing 28 per cent. of iodine, insoluble in water, soluble in alcohol, ether, and oils. It is resinous to the touch and adheres well to mucous, membrane, and wound surface. It is five times lighter than iodoform, and cakes less easily. Is non-poisonous, and acts only when brought into contact with secreting surfaces, which decompose it and liberate iodine. Losophan, a greyish crystalline powder, soluble in alcohol, chloroform, oils, and fats. Contains 80 per cent. of iodine.

Iodothyrine is stated to be the active principle of the thyroid gland. It is permanent and not liable to decomposition, the iodine compound being free from albuminoid bodies.

Somatose is a light yellow granular powder, soluble in water. It is prepared from meat, and consists mainly of albumose. It is nearly tasteless and odourless, and may be given in any liquid. Its value as a nutrient appears to be of the highest order.

Sport.

Cricket.

THE following is the list of matches for the coming season :—

FIRST ELEVEN.

Date.	Time.	Against.	Ground.
April 30.	11 0	Beckenham	Beckenham.
May 7.	11 0	St. Mark's College ...	Honor Oak Park.
11.	2 0	Trial Game	Honor Oak Park.
14.	11 0	Crystal Palace.....	Crystal Palace.
18.	11 0	Croydon	Honor Oak Park.
21.	11 0	Surbiton	Surbiton.
28.	11 0	Dunstable Gram.Sch.	Dunstable.
30.	11 0	Past v. Present	Honor Oak Park.
June 4.	11 0	Reigate Priory.....	Honor Oak Park.
8.	11 0	Hornsey	Hornsey.
11.	11 0	Brentwood	Brentwood.
25.	11 0	Reigate Priory.....	Reigate.
July 2.	11 0	Hornsey	Honor Oak Park.
16.	11 0	Brentwood	Honor Oak Park.

SECOND ELEVEN.

May 11.	2 0	Trial Game	Honor Oak Park.
14.	2 30	Croydon II.	Honor Oak Park.
21.	2 30	Granville (Lee)	Lee.
28.	2 30	Dulwich	Dulwich.
June 1.	2 30	Royal School of Mines	Honor Oak Park .
8.	2 30	London Hospital.....	Edmonton.
11.	2 30	Croydon	Croydon.
18.	2 30	Granville (Lee) ...	Honor Oak Park.
25.	2 30	Old Dunstonians.....	Honor Oak Park.
29.	2 30	London Hospital.....	Honor Oak Park.
July 6.	2 30	City of London Sch.	Honor Oak Park.
30.	2 30	Hos.-Scho.	Honor Oak Park.

GUY'S v. BECKENHAM.

Our first match of the season was played at Beckenham on April 30th, and resulted in a draw. Owing to the saturated state of the ground play was impossible until after lunch, when Beckenham, having won the toss, began batting to the bowling of Clarke and Joy. With Clarke's first ball G. C. Baker was easily caught at third man, but afterwards, in spite of some good fielding, Beckenham declared their innings closed with a total of 154 for five. Having only one and a half hour left for play victory was impossible, but on our first three wickets falling in rapid succession for the small total of 10 runs, it seemed we should not even make a draw of it. On Humphrey joining Trubshaw matters improved, and at the call of time we were two wickets in hand.

At present it is very early to speak of our prospects for the season, but we have every reason to expect that the team will be quite as strong as last year. Scores :—

BECKENHAM.

A. A. Torrens, c Trubshaw, b Joy	62
G. E. Baker, c Holmes, b Clarke	0
J. K. Stennings, run out	18

F. D. Browne, c Clarke, b Wetherell	37
C. M. Baker, not out	22
W. R. Stratton, b Joy	0
W. B. Baker, not out	9
Extras	6
Total	154

H. Z. Baker, E. H. Boyd, Rev. H. C. Green, A. A. Baker, did not bat. Innings declared closed.

GUY'S.

F. C. Wetherell, c Boyd, b C. M. Baker	2
A. E. Clarke, b W. B. Baker	1
K. V. Trubshaw, b Stratton	28
H. Durbridge, c Torrens, b C. M. Baker	1
L. Humphry, b C. M. Baker	28
H. P. Wiltshire, c H. Z. Baker, b Stratton	17
G. P. Joy, c Browne, b W. B. Baker	19
T. E. Holmes, c C. M. Baker, b Stennings	13
A. E. Cawston, not out	1
A. C. Lewis, not out	0
Extras	10
Total	120

C. Cowper did not bat.

Guy's Hospital Rifle Association.

FIXTURES FOR SEASON 1898.

Date.	Event.	Range
May 5.	Practice	Ilford.
9.	Practice	Ilford.
18.	St. Mary's Hospital	
21.	Royal Indian Engineering Col.	Cooper's Hill.
31.	Weymouth Col. (simultaneous)	Ilford.
June 4.	Dulwich College	Wraysbury.
6.	Whitgift	Marden Park.
11.	St. Paul's School	Bisley.
21.	St. Bartholomew's Hospital	Ilford.
July 4.	Whitgift	Marden Park.
7.	Newton-Pitt Challenge Cup and Annual Prize Competition	Ilford.
July —.	United Hos. Challenge Cup	Bisley.

H. STANLEY-TURNER, Hon. Sec.

Guy's Hospital Lawn Tennis Club.

The Lawn Tennis Club opens its season at Honor Oak Park on Saturday, May 7th, with a trial match between Senior and First Year's men, due notice of which has been given on the Lawn Tennis notice board in the colonnade and in the smoking room. Before many days Harris will have eleven courts (an addition of two on last year) for use at Honor Oak, three of which are reserved for matches, etc., so tennis men will be well provided for in this respect.

The great aim of the L.T.C. is to win the Inter-Hospital Challenge Cup, a cup which has not found a resting place in our smoking room since 1892. Our continued ill-success in the cup competition shows too clearly that hospital tennis is by no means up to the standard it should be. We of Guy's have exceptional advantages (among the foremost of which is the interest displayed in our doings by the staff) for acquiring sound knowledge of the game, and it is to be hoped that men this year, both senior and freshmen, will by constant and keen practice, help the hospital to regain the challenge cup. Unfortunately several of last year's team will be unavailable this season, these places must be filled up as soon as possible, so it behoves tennis men not to delay in coming forward.

More attention must be paid to the single game, as though the hospital in last year's cup competition did fairly well in the doubles, it failed miserably in the singles. Six out of the fifteen matches being singles speaks for itself.

Lawn tennis, although it does not require its votaries to have the physique of a Rugby forward, nevertheless, men must be absolutely fit if they wish to rise above the level of the "Conversational Pat-ball" of which one at times sees such brilliant expositions at Honor Oak.

In conclusion, any member of the Committee will be only too pleased to enlighten new men on things tennis at the hospital, and notices of all important events will be duly posted on the tennis board. P. S. MANDY.

THERE will be a trial Polo game at the Southwark Baths on Wednesday next, at 4 p.m.

Births.

CROOK.—On the 4th inst., at 23, Dalby Square, Cliftonville, Margate, the wife of Herbert Evelyn Crook, M.D., B.S. Lond., F.R.C.S., of a son.

WALLIS—On April 15th, at Roman Road, Bow, E., the wife of Sidney Seymour Wallis, L.R.C.P. Lond., M.R.C.S., of a daughter.

Marriages.

EVERY-CLAYTON — BENNETT. — On Wednesday, April 27th, at St. John's, Great Marsden, Lancs., by the Rev. G. Fry, M.A., Vicar, assisted by the Rev. Harri Edwards, Vicar of St. Mary's, Nelson, Leopold Ernest Valentine Every-Clayton, M.D., B.S. Lond., F.R.C.S., of Emsworth, Hants, son of the late Thomas Edward Every-Clayton, Esq., of Carr Hall, Lancs., to Dorothy, fourth daughter of the late Edward Augustus Bennett, Esq., M.R.C.S., L.S.A., of Marsden Hall, Nelson, Lancs.

PRALL—HUNT.—On the 20th instant, at St. Mary's, Bampton, Oxfordshire, by the Rev. Herbert Hunt (Bournemouth), brother of the bride, assisted by the Rev. N. K. Hampshire, Vicar, John Henniker, M.R.C.S., L.R.C.P., second son of John Thomas Prall, Solicitor, of Rochester, Kent, to Beatrice, fifth daughter of the late Rev. E. G. Hunt, Vicar of Bampton, and of Mrs. Hunt, of "St. Stephen's," Bampton.

ED.—F. E. W.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold, will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

May.

Sat. 21.—Mr. Lucas's take-in; Drs. W. H. Edwards and C. Edwards; Cl., H. Cardin.
G.H.C.C., I., Surbiton, away.
II., Granville (Lee), away.

Mon. 23.—Final Fellowship Exam.
Cambridge First and Second M.B. Exam. Schedules to be brought to the Medical Office for signature.

Wed. 25.—1.30 p.m., Clinical lecture by Dr. Washbourn.
Mr. Golding Bird's take-in; Drs. F. E. Hutchinson and J. H. Roberts; Cl., A. H. B. Kirkman.

Thur. 26.—G.H.C.U., Addresses by two Students.

Fri. 27.—Lectures cease.

Sat. 28.—G.H.C.C., I., Dunstable Grammar School away.
II., Dulwich, away.
Hos.-Sch.C.C., Hanover, home.
G.H.L.T.C., Wanstead, away.

Mon. 30.—Whit Monday. Medical Office closed.
G.H.L.T.C., Past and Present, home.
G.H.C.C., I., Past and Present, home.

June

Wed. 1.—Mr. Howse's take-in; Drs., H. B. Dismorr and C. A. Lower; Cl., E. Evans.
G.H.C.C., II., Royal School of Mines, home.

Fri. 3.—Last day for names to be sent in for First and Second M.D. Cambridge Exam.

Sat. 4.—Last day for applying to Registrar for form of entry for Intermediate M.B. Lond. Exam.
G.H.C.C., I., Reigate Priory, home.
II.,
Hos.-Scho., South Lon. Tab., Nunhead.
G.H.L.T.C., Albemarle (5 p.m.), home.

Guy's Hospital Gazette,

MAY 21, 1898.

Cirrhosis of the Liver.

CLINICAL LECTURE BY DR. W. HALE WHITE.

GENTLEMEN,—We have had so many opportunities lately of studying cirrhosis, but in the short time of an hour we can only consider two cases. The first that I propose to take is the following.

CASE I.—Eliza P., æt. 41, was admitted into Mary ward on 29th May, 1897. She had been previously admitted on 12th May, also in 1897, and she then sought admission for swelling of the abdomen and legs. She had drunk hard. For the last twelve months her feet had swelled, and for the last six months her abdomen had enlarged. For some time she had suffered from morning vomiting; lately she had become slightly jaundiced, and she noticed her urine to be scanty, high coloured, and to contain a red deposit. The liver could be felt to be hard and nodular. The day after admission the abdomen was tapped and fifteen pints of ascitic fluid were withdrawn. After this she only remained in the hospital a few days, but even when she left the abdomen had almost regained its former size. On 29th May her new report states that she was a woman who looked older than her age. She was rather wasted; her face was red; she was slightly jaundiced. Her lips and tongue were tremulous, and she was distinctly drowsy. Her abdomen was much distended, being 44 inches in circumference; the umbilicus was prominent, and the superficial veins of the abdominal wall were well marked and the blood in them flowed from below upwards. There was evidently much fluid in the abdomen, for it was dull in the flanks, but the dulness there disappeared if the patient lay on her opposite side, and it was easy to obtain a thrill. The liver could not be felt, but the spleen could be made out on dipping. The pulse was 102,

and there was a hæmic murmur in the pulmonary area, otherwise the circulatory system appeared normal. On examining the chest we found that there were a few rhonchi to be heard in front, and many rhonchi and râles could be heard behind, especially at the base. Here the entry of air was bad and the percussion note was dull. The patient's legs were œdematous. Her urine contained no albumen; its specific gravity was 1010. She was ordered some compound jalap powder at night, to be followed by some sulphate of magnesium in the morning; also we gave her large doses of copaiba resin, and restricted the fluids she drank. On June 4th the abdomen was tapped. Twenty-one pints of fluid were drawn off and the fluid contained albumen. The next day she was still drowsy. The liver could be easily felt, the margin of it was in the nipple line six inches below the ribs; the surface felt hard and rough. The only thing further to say about this patient is that her jaundice became deeper and deeper, her weakness increased, and she gradually became more and more drowsy until at last she could hardly be roused. She died on June 22nd. At the post-mortem examination it was found, as we expected, that she had cirrhosis of the liver. The organ weighed 74 ounces; its surface was nodular and its edge irregular. It was very tough on section, showing small bright yellow areas surrounded by white fibrous tissue. The cirrhosis was both unilobular and multilobular.

Case II.—This patient is 50 years old, and she lies in Miriam ward. She has drunk a considerable amount of beer and spirits. Three months ago her feet began to swell, and three weeks ago her abdomen began to increase in size. She has vomited occasionally during the last three months, and she has been much troubled with piles. She has never been jaundiced. If you will go into the ward you will see she has wasted, and that she has dilated venules on her cheeks and nose. The abdomen gives the same indications of fluid in it that we noticed in the first case. The liver cannot be felt. The heart and lungs are healthy. The urine contains a trace of albumen.

Now, in both these cases the diagnosis made at the bedside was that the patient was suffering from cirrhosis of the liver, and it is, therefore, necessary that before we go any further you should have a clear idea of what we meant. We meant that whenever the patient died we should, even with the naked eye, be able to make out that the fibrous tissue of the liver was uniformly throughout the organ greatly in excess of the amount found in healthy livers. Because of this the cirrhotic liver is very hard, usually by the time the patient dies this abnormal fibrous tissue, like most abnormal fibrous tissue, has begun to contract, and therefore the surface of the liver is uneven, and if the prominences of liver substance between the closely contiguous strands of fibrous tissue are of a suitable size, the liver is hobnailed. Many of the hepatic cells are atrophied, and many have undergone fatty degeneration. These are the only essentials of a cirrhotic liver. Its weight is very variable, it may be anything between 30 and 200 ounces, according as to whether the atrophy of the liver cells, the fibrous tissue, or the fat preponderates.

The liver may be jaundiced on section, the fatty degenerate portions of liver substance may stand out raised from the surface of the section, because cutting the organ has relieved them from the pressure of circumjacent fibrous tissue. The capsule of the liver may be a little opaque; occasionally the portal vein is thrombosed. I particularly want you to remember that a cirrhotic liver is easily recognized without the aid of a microscope.

I have noticed that students find cirrhosis of the liver a difficult subject to understand, but the difficulties are entirely due to the fact that many authors have described cirrhosis incorrectly, and that other authors have copied these incorrect descriptions. If you simply observe for yourself the cases that occur in the wards and the post-mortem room, I think your difficulties will disappear.

The first difficulty that you usually encounter in reading about cirrhosis, is that you are told there are two varieties of cirrhotic liver, namely the atrophic and the hypertrophic, and that each variety has its own special symptoms, so that atrophic cirrhosis and hypertrophic cirrhosis are separate diseases. This distinction we owe to French authors. I shall try to show you that if we observe for ourselves we shall find that no such distinction exists.

The French teach that there are the following points of distinction between atrophic and hypertrophic cirrhosis. Firstly, the large or hypertrophic cirrhotic liver is not hobnailed, the increase of fibrous tissue starts round the biliary channels, and this new tissue surrounds individual lobules and extends into them; for these reasons it is called biliary cirrhosis, and is said to be perilobular and intralobular. There is a formation of new bile ducts. On the other hand, they say that the small atrophic liver is hobnailed, that the formation of new fibrous tissue starts round the portal vein, that it embraces several lobules into one area, and

never extends into the lobules; for these reasons it is called portal cirrhosis, and is said to be multilobular and extralobular; there is no new formation of bile ducts. With regard to symptoms, the French state that when the patient's liver is affected with the hypertrophic form of cirrhosis, he will have little or no ascites, his jaundice will be marked and lasting, he will be particularly liable to coma, delirium, and convulsions, the spleen will be found to be enlarged, he will have occasional attacks of slight pyrexia, there will be no albumen in his urine, and he will from time to time complain of attacks of hepatic pain. Further, they state that sufferers from hypertrophic cirrhosis are not addicted to alcohol, that they are younger than those who suffer from atrophic cirrhosis, that they are mostly men, and that their illness lasts a long time. On the other hand, the sufferers from atrophic cirrhosis usually have considerable ascites, jaundice, if present, is slight, and often transitory, the spleen is not enlarged, coma, delirium, and convulsions, slight pyrexia and pain are not so often met with as in the hypertrophic disease, albuminuria is not uncommon. Also they have usually taken excessive amounts of alcohol, they are older than those who suffer from the hypertrophic form, but their illness lasts a shorter time and most of them are women.

Now I quite admit that if you see many instances of cirrhosis of the liver, you will sometimes meet with cases in which the liver is enlarged, the spleen is enlarged, the patient is jaundiced and has not aseites. But cirrhosis of the liver is a very common disease, so when you have seen many cases you will meet with all sorts of combinations of the symptoms; this however is no justification for establishing different varieties of the disease any more than you would be justified in establishing as a distinct variety of typhoid fever those cases which had abundant diarrhœa and no spots, although by the time that you have seen many cases of typhoid fever you are sure to have come across some. However, we will now take separately each of the points urged by the French school and see if they are valid.

First, as regards the appearance and weight of the liver. You may often see a hypertrophic liver which is hobnailed. The first patient whom I described to you to-day had a liver which weighed 74 ounces; that is to say, it was considerably hypertrophied, but yet it was markedly hobnailed. Of course, as a rule, the smaller the liver the more marked is the hobnailed appearance, for contraction of the fibrous tissue means that the liver will become small, and that the hobnails will become well-marked; this very simple consideration should at once prevent anyone from exalting into a position of great importance the fact that atrophic livers are markedly hobnailed.

Let us now examine the weight of some cirrhotic livers. The cirrhotic liver may weigh anything between 30 and 200 ounces. Dr. J. A. P. Price published in the Guy's Hospital Reports an account of 142 fatal cases. In thirty-three the liver weighed between 50 and 60 ounces; in twenty-nine it was under 50 ounces, and in eighty it was over 60 ounces. So you see, the weight varies very much; it is impossible to group the livers into a hypertrophic group and an atrophic group, for if you do where will you place the thirty-three in which the weight was between 50 and 60 ounces. And further, as more of the cases were over than under the normal weight, they strongly suggest that the course of events in cirrhosis is for the liver first to become large and then to become small, for then as the patients die off the number would diminish, and we should have fewer with the light livers, and some, viz., those in whom it weighed between 50 and 60 ounces, would die when the liver having been hypertrophied had shrunk down again to the normal weight. This view is certainly correct for some (and probably all) cases, for Dr. F. Taylor has in the Guy's Hospital Reports published a case in which a big cirrhotic liver was observed to shrink while the patient was under observation, and other authors have published similar cases.

Now let us turn to the next point on which the French lay such stress, namely, that when the liver is large ascites if present is slight. Our very first case disproves this contention, for the liver weighed 74 ounces, and yet within three weeks the patient was tapped twice and thirty-six pints of fluid were withdrawn, and I could quote you many other similar cases.

Then, too, our first case shows that it is not true that when the liver is enlarged the jaundice is deep and long-standing, for the jaundice in the patient was very slight, and certainly my experience is that there is no relationship between the jaundice and the size of the liver.

Nor have I ever been able to notice any relationship between the size of the liver and the nervous symptoms. The liver in our second case is certainly not enlarged, and yet the patient is drowsy, but this is contrary to the French view.

You can easily test the statement that when the liver is enlarged the spleen is enlarged, and

I can promise you that you will find there is no relationship between the enlargement of the liver and that of the spleen. The most recent collection of cases is by Rolleston, and his figures show most conclusively that there is no such relationship.

The next point we took among those urged by the French was their statement that when the liver is enlarged the patient does not give an alcoholic history. This is altogether contrary to my experience, and our first patient had a hypertrophied liver and yet she had drunk hard. Whether the liver is large or whether the liver is small you are equally likely to find that the patient has been intemperate, and indeed in the collection of cases made by Rolleston a history of alcoholic intemperance was rather more often found in those who had large livers than in those who had small.

I have never observed albuminuria to be commoner when the liver is small than when it is large, and some series of cases show granular kidneys to be met with oftener in association with a large liver, while other series show they are more often associated with small livers, so we see that this supposed difference between hypertrophic and atrophic cirrhosis does not hold.

The French do not lay much stress on the point that the hypertrophic cases are the most likely to have attacks of pain and slight pyrexia. I have never noticed any differences in these respects.

Their statement that the atrophic cases occur in older people than the hypertrophic is, I think, true, but the distinction is of no value, for if the atrophic stage succeeds the hypertrophic it naturally follows that, as a rule, the sufferers from atrophic cirrhosis will be older than those who have hypertrophic cirrhosis.

I took fifty cases at random, to see whether it is true that the atrophic form is commoner in women, and there was no noteworthy association between the sex and the size of the liver; indeed, in this series the hypertrophied liver occurred slightly oftener in women than in men.

The statement that the hypertrophic form lasts longer than the atrophic is of no value whatever as a distinction, as it is obvious that it must be so, for many of the hypertrophic cases will live on through this stage, but when a man gets to the atrophic stage he has no further to go, he is near his end.

There has been much controversy, both here and abroad, as to whether the French statements as to the histological distinction between the two forms holds, and it has been conclusively shown that there is no such distinction.

I think that you will now agree with me that there is no distinction between atrophic and hypertrophic cirrhosis, and so one of your greatest difficulties in understanding the subject is swept away.

The next difficulty to which I want to direct your attention is that of biliary cirrhosis. Charcot and others have tied the common duct in animals, and they say that by this means they produced cirrhosis of the liver, and further, that it was a cirrhosis having all the characters of what the French school call hypertrophic cirrhosis. I have already given you the characteristics which the French assign to what they call hypertrophic cirrhosis. Charcot and his followers further maintained that when in the human subject the duct is obstructed for some time, as it often is by a gall-stone, the liver becomes affected with hypertrophic cirrhosis. I myself have never seen any evidence that gall stones can produce cirrhosis, and the question has been recently definitely settled by Naunyn in his important book on gall-stones. He says that the great majority of sufferers from biliary obstruction show no evidence of gall-stones, and if in a large series of cases one or two show a little cirrhosis it is very slight, often requiring a microscope for its demonstration; it is never marked enough to cause any symptoms, and has not the characters which the French describe under the term hypertrophic cirrhosis. So you may dismiss biliary cirrhosis from your minds, because clinically it does not exist.

Another difficulty is cirrhosis as it affects children. In the first place, you must remember that it is rare and probably at least three varieties exist.

The first and commonest is a cirrhosis which in its clinical symptoms exactly resembles ordinary cirrhosis of adults. Very often children who suffer from this have taken alcohol, and you must not be too ready to assume that they have not, for naturally their parents deny having given them any; still, in a very few cases it appears that the children have certainly not taken alcohol, and in these cases we do not know the cause of the cirrhosis.

The second variety is very rare. It was first described by the French, especially M. Hanot. The liver is very large; the spleen reaches below the umbilicus; the child is deeply jaundiced, and the fingers and toes become enlarged. We understand nothing about this disease. It is so rare that most practitioners never see a case, but you have all, I hope, seen the boy

who was under Dr. Taylor in Stephen ward and who suffered from it.

You will find, described by Dr. Taylor, in the Guy's Hospital Reports, volume 52, the very exceptional case in which in a child the disease lasted a very long time. Many of the ordinary symptoms of cirrhosis were absent, and no cause could be made out for the disease. This probably represents an extremely rare variety of cirrhosis, of which we know little or nothing.

Another difficulty about which there is much confusion is the ætiology of cirrhosis. The following causes have been given for it :—

Alcohol.—In over 60 per cent. of hospital cases you will easily obtain a history of excess in taking alcoholic drinks. When you remember that persons who drink often conceal the fact, and that in hospital patients the history of previous habits is often very difficult to obtain, it will be clear to you that over indulgence in alcoholic drinks is by far the commonest cause for cirrhosis; indeed. it is possible it may be the only cause. You will notice that I have ascribed cirrhosis to alcoholic drinks and not to alcohol, for we do not know what constituent of the alcoholic drinks causes cirrhosis ; that it is not ethyl alcohol is quite possible for it is impossible to produce cirrhosis in animals by the administration of absolute alcohol, and cirrhosis is much less common in Scotland than in England. These facts suggest that cirrhosis may be due to some of the various other substances besides ethyl alcohol, which are present in alcoholic drinks, for as they are not equally present in all, some alcoholic drinks may produce cirrhosis while others may not.

Syphilis.—I particularly want you to be clear about this. Acquired syphilis produces gummata in the liver, these when absorbed leave large depressions on the surface of the organ. It also causes large fibrous bands to appear in the liver, and as these contract they too deform the organ ; further, as in any other part of the body, when gummata are absorbed they leave much fibrous scar tissue. You will see, therefore, that although the surface of a syphilitic liver is irregular, and although the fibrous tissue in it is increased, these irregularities and the fibrous tissue are not uniform, and the liver never resembles an ordinary cirrhotic liver. The two diseases are so distinct that any student who could not tell a cirrhotic from a syphilitic liver ought at any examination in medicine to be absolutely plucked. Congenital syphilis produces the same effects as acquired syphilis, and they can during life be made out in childhood, but if the sufferers from it survive, the liver so far recovers itself that it cannot during life be recognised as deformed by the time adult age is reached. Congenital syphilis may also increase the fibrous tissue in the liver to such an extent that the organ becomes enlarged, stony, hard, inelastic, flint, grey and anæmic. The sufferers from this form of disease of the liver are nearly always stillborn, or at any rate they only live a few days.

Many books will tell you that syphilis will produce cirrhosis of the liver because it causes an excess of hepatic fibrous tissue, but I hope I have made it clear to you that it does not produce effects which in any way resemble ordinary cirrhosis of the liver, and therefore it is much better not to speak of syphilis as a cause of cirrhosis, especially as a syphilitic liver never produces the symptoms of ordinary cirrhosis of the liver.

Malaria.—Repeated attacks undoubtedly often leave the liver very hard and of considerable size, but whether malaria ever produces a liver like the common cirrhotic liver in its morbid anatomy, and symptoms like the ordinary symptoms of cirrhosis is doubtful. I have only seen one case in which this might have been so, and in this as in so many of such cases it was very difficult to be sure that alcohol might not have been the cause. If malaria is a cause for cirrhosis it is very rare.

Backward venous pressure from cardiac and pulmonary disease. — Long standing venous congestion of any organ leads to a slight increase in the fibrous tissue in it, but venous congestion of the liver never leads to anything like enough new fibrous tissue for it to be possible to confound such a liver with an ordinary cirrhotic liver, nor are the symptoms of cirrhosis associated with the condition (nutmegged) of liver met with in the subjects of cardiac and pulmonary disease.

Lead poisoning, tuberculosis, dyspepsia, diabetes, pneumonia, and scarlet fever.—Some observers have maintained that in each of these diseases there is occasionally an increase of hepatic fibrous tissue. But even if this is so, the increased fibrous tissue is so minute in quantity that the microscope is always required for its detection, and neither clinically nor after death does the liver ever resemble ordinary common cirrhosis of the liver.

Therefore, we learn that for the disease commonly known as cirrhosis of the liver, which has its own symptoms, and its own typical morbid anatomy, we only know one cause, namely, alcoholic drinks. This is certainly by far the commonest cause, but it may be that

some few cases own some other cause or causes, if so, we do not know them, and certainly none of the commonly mentioned causes (except perhaps in rare cases, malaria) ever produce the disease cirrhosis of the liver.

We may, therefore, sum up as follows:— Some substance in certain alcoholic drinks acts as a chronic irritant to the liver and produces the changes in it that we have already described. The liver enlarges and subsequently shrinks, the shrinkage being due to atrophy of liver cells, contraction of fibrous tissue, and absorption of fat. This view that the large liver is the early stage, and the contracted liver the late stage of the same disease satisfactorily explains the following facts: (1) the large liver has been observed to contract; (2) the large liver is more commonly seen in the wards than the small, because many sufferers from cirrhosis die before the liver becomes small; (3) the age at death of those with large livers is some four years less than that of those with small; (4) at death a large liver is oftener found than a small, and the liver is often of normal weight.

Now, I wish to point out to you a few facts about the symptoms. In the first place, it is important to remember that the liver may be cirrhosed and yet the patient may have no symptoms of cirrhosis, so that until the doctor while making a routine examination finds the liver enlarged and rough, both he and the patient are unaware that it is diseased. Thus you may find it accidently in patients whom you examine for life insurance. In between a half and a third of all the cases of cirrhosis found in the post-mortem room, the patient has died of something else than cirrhosis, and in many of these cases, although he has been under observation in the wards, no symptoms of cirrhosis have been observed. Cirrhosis of the liver, producing no symptoms, has been found in those dying of tubercle, chronic Bright's disease, and pneumonia, because alcoholic excess is particularly fatal to sufferers from these diseases, but it may be found in those who are apparently healthy, but are killed by an accident. Those persons, who, if they come under observation, are found to have a cirrhotic liver without any symptoms of cirrhosis, may, if they give up drinking, continue to live for many years without showing any symptoms.

But a patient with a cirrhotic liver may at any time show the symptoms of the disease, and if he lives long enough and continues to drink he will certainly do so. These symptoms, which are illustrated by our two cases, are:—

(1) Sallow anæmia, with a tendency to epistaxis and the development of purpuric spots; (2) a red nose, often going on to acne rosacea, together with injected venules on the cheeks; (3) morning vomiting, loss of appetite, indigestion and constipation; (4) piles, hæmatemesis and bleeding from the gastro-intestinal mucous membrane; (5) jaundice; (6) scanty high coloured urine, which contains an excess of urates and but little urea; (7) ascites; (8) œdema of the feet; (9) coma, or more rarely delirium with convulsions, and difficulty of breathing.

Some of these symptoms, as vomiting, indigestion and constipation, may be due to catarrh of the stomach, caused directly by the alcohol on portal congestion, and as the anastomoses between the gastric and œsophageal veins are often found dilated, the cirrhosis may by its impediment to the portal circulation cause hæmatemesis, piles, melæna, and perhaps enlargement of the spleen. The jaundice may be a direct result of disease of the liver, but the ascites, the swelling of the feet and the nervous symptoms must be considered more fully.

The ascites is not solely, if indeed at all, caused by pressure on the portal vein, for I have collected a number of cases which show that the fluid collects very rapidly, often at the rate of from a pint to half a pint a day; and you will notice how rapidly it collected between the two tappings in our first case. And further, the onset of ascites nearly always means that the patient will be dead within two or three months of its onset (it is difficult to fix the onset of ascites in our first case, for it is quite likely that when the patient first noticed abdominal enlargement this was due to the large liver); so you see that in a chronic disease we usually have a rapid outpouring of fluid into the peritoneal cavity commonly associated with a fatal issue. Therefore the sole cause for ascites cannot be pressure on the portal vein, for a cirrhosis that is slow and gradual, would not lead to a sudden outpouring of fluid into the peritoneal cavity; and further, you must remember that it is difficult in the lower animals to produce ascites by ligature of the portal vein.

The swelling of the feet is not due to pressure of the fluid in the abdomen on the vena cava, for I have seen many cases (like our second case) which show that the œdema of the feet precedes the ascites, and, too, it bears no relationship to the size of the liver.

These facts all point to the view that the patient suffering from cirrhosis of the liver is like the sufferer from chronic Bright's disease,

in that he is always liable to the somewhat sudden development of a series of symptoms usually fatal, and they also suggest that as with the uræmic symptoms of Bright's disease, so these symptoms are probably due to the failure of the diseased liver to excrete some toxine, or to the manufacture of some toxic substance by it; and further, they show that if this view is correct, this substance is a coma producing lymphagogue (it causes ascites and swelling of the feet) which nearly always kills.

We have no time left to discuss the treatment. Our first case had copaiba resin, because Dr. Taylor has pointed out that it is an excellent diuretic for cirrhotic patients suffering from ascites, and I can certainly confirm what he says.

NOTE.—I was away for a holiday when my clinical lecture on Morphomania was published in the GAZETTE, March 19th, 1898, and, therefore, could not correct an important misprint. The drug advised for the sleeplessness which follows abstinence from morphine was chloralamide, not chloral.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Circulatory System.

PHILIP	8.	Aortic and mitral regurgitation.
	16.	Aortic incompetence. Pericarditis.
	28.	Mitral stenosis and regurgitation. Tricuspid regurgitation.
	35.	Cardiac dilatation and hypertrophy. Albuminuria.
STEPHEN	1.	Tricuspid regurgitation. Mitral stenosis.
	2.	Aortic aneurysm.
	24.	Aortic incompetence and constriction.
	28.	Mitral regurgitation. ? Chronic nephritis.
	34.	Mitral incompetence and constriction.
MARY	22.	Pericarditis.
	28.	Mitral stenosis and regurgitation. Tricuspid regurgitation.
	33, 38, 47.	Aortic disease.

Nervous System.

PHILIP	30.	Tubercular meningitis. Optic neuritis.
STEPHEN	19.	Progressive muscular atrophy.
	31.	Gastric crisis.
MARY	4.	Primary spastic paraplagia.
	6.	Peripheral neuritis. Ascites. Cirrhosis.
	30.	Acute myelitis and paraplegia.

Alimentary System.

PHILIP	2.	Ague. Enlarged liver and spleen.
	5.	Diabetes mellitus. Coma.
	18.	Ascites. ? Growth. Cirrhosis.
	29.	Left subphrenic suppuration. ? Perforation of latent gastric ulcer.
	33.	Carcinoma ventriculi.
	40.	Gumma of liver.
STEPHEN	5.	Enterica.
	11.	Cirrhosis of liver.
	12.	Enlarged liver and spleen. ? Thickened pleura. Left. ? Tubercular testicle.
	36.	Enterica.
MARY	6.	Ascites. Cirrhosis. Peripheral neuritis.
	34.	Colotomy for malignant growth in sigmoid (performed 5 years ago).
	40.	Enlarged liver.
	42.	Gastric ulcer.

Genito-Urinary System.

PHILIP	21.	Chronic Bright. Albuminuric retinitis.
	32.	Pyuria. ? Tubercle. ? Perinephritic abscess.
	34.	Hæmaturia. ? Growth in kidney.
STEPHEN	16.	Acute nephritis.
	18.	? Renal. ? Left diaphragmatic pleurisy.
MARY	32.	Right renal calculus. Left kidney movable.

Respiratory System.

PHILIP	22.	Old thickened pleura. Pleurisy. ? Tubercle.
	26.	Chronic inflammation and shrinking of right lung.
	37.	Chronic bronchitis and emphysema, with acute lobar pneumonia.
STEPHEN	14.	Hæmoptysis.
	15.	Tubercular laryngitis.
	17.	Broncho-pneumonia.
	22.	Pneumonia.
MARY	48.	Phthisis, right apex.

Miscellaneous.

STEPHEN	25.	Diabetes and phthisis.
	29.	Leuchæmia.
PHILIP	3.	Acute eczema.
	36.	Scrofulodermia.
MARY	12.	Exophthalmic goître.
	29.	Pityriasis rubra.

"Clinical."

	2.	Cirrhosis of liver. Jaundice.
	4.	Œsophageal growth.
	5.	Pneumonia.
	6.	Mediastinal tumour. Pressure on superior vena cava. Rupture of abscess into the œsophagus.

7. Sarcoma of stomach. ? Origin. Dilated stomach.
8. Chronic bronchitis and emphysema.
10. Pneumonia. Empyema.
11. Sub-acute Bright.
12. Diabetes mellitus.
13. Mitral stenosis. Pleurisy.
14. Scorbutus.
16. Cerebro-spinal meningitis.
18. Hepatic cyst. Operation.
19. Empyema.
20. Mitral stenosis and regurgitation. Tricuspid regurgitation. ? Infective endocarditis.
23. Subacute Bright.
26. Perforated gastric ulcer. Operation. Recovery.
28. Perihepatitis. Abscesses.
30. Pneumonia.
31. Infective endocarditis.
36. Pleuritic effusion.

In the Surgical Wards.

Case under Mr. Howse.

Torsion of Spermatic Cord and Gangrene of the Testis.

E. F., an office clerk, aged 16 years, applied for treatment at the Out-patients' Department on May 5th, 1898, with the history that two days previously he was fingering his testicle about and was suddenly seized with an aching pain in that region. The pain continued, so he went to bed and hot cloths were applied; the pain soon abated and patient went to sleep. He had no vomiting, and the testicle did not appear then to be swollen. Next day he still had an aching pain in the testicle, but he went to work as usual. Towards evening the pain got worse, and next day he came up to the hospital.

On examination, the skin of scrotum was red and slightly œdematous, the right testis was swollen and extremely tender, the epididymis could also be felt to be enlarged; there was pain and difficulty in walking. Mr. Jacobson, who saw him, sent him up to the Surgery for admission; owing to there being no beds, he was sent home with instructions that he was to be kept at rest in bed. Mag. Sulph. ʒi. bis. die. Lotio Plumbi. with Opio. pro. ap. were ordered.

The boy next came up a week after, when the pain was much less, tenderness not so marked, and only slight pain on walking. Appetite good, bowels regular no translucency and the swelling could be made out, but fluctuation was distinct.

Owing to the swelling and redness, with fluctuation, it was thought advisable to make an incision into the scrotum immediately on admission. About one ounce of dark blood oozed out, the sac was irrigated, and a black, hard mass the size of a billiard ball could then be seen, which proved to be a gangrenous right testicle. Hot fomentations were applied and patient put back to bed, in order to obtain permission from the parents for its removal.

Two days after, Mr. Howse removed the right testicle; the lower part of the spermatic cord at its junction with the epididymis was found to be twisted one half turn—the epididymis thus pointing forwards. The patient is now doing well. On examination of the testicle, the body of the testis was absolutely black from extravasation of blood into its substance, and the epididymis was much swollen and dark from the same cause. The structure of the testis, however, was not disorganised. There was no mesorchium present, the testicle giving the appearance of a cherry hanging from its stalk. The testicle appeared to be normally descended; the boy states he has never known it to slip away.

The chief points of interest about this case seem to be: (1) Absence of vomiting and of any acute symptoms, such as are usually to be found in these cases, which often simulate, and have been frequently mistaken for strangulated hernia, and even acute intestinal obstruction. (2) The chronic course which the case took—the boy doing his usual work for a day after the onset of the illness, and eating his food as usual till time of operation, ten days after. (3) It not being associated in this case with any imperfect descent of the testis.

MONTAGUE H. WAY.

Note by Surgical Registrar.

A well-formed right testicle of normal size; in colour, a very dark blackish red, with its peritoneal surface dulled and filmy, with recent lymph uniformly distributed over it. The cord is severed just at the level of the upper border of the testicle; is also much congested and blackish in colour. The most important abnormal appearance on the exterior was the arrangement of the visceral layer of the tunica vaginalis which did not seem to be reflected laterally from the epididymis on to the scrotal parietes, but seemed to entirely enclose the testicle as the finger of a glove, being probably reflected from the vas deferens at a higher level than the point of section, so that the testicle being completely surrounded lies free in the sac of the tunica vaginalis, without the sheet anchor which the normal reflection of the tunica vaginalis must be to the ordinary testis. Such an abnormality I have not seen described elsewhere. Section confirmed the external appearance of acute congestion, which, though most marked in the epididymis, had nowhere advanced as far as tissue disintegration or gangrene. There was no evidence of twisting in the small portion of cord sent.

The whole specimen has gone to the Museum.

C. H. F.

Papers by Guy's Men.

Puerperal Eclampsia. By Thomas G. Stevens, M.D., M.R.C.P. Lond., F.R.C.S.—*Lancet*, May 14th.

Infection.

THE TREASURER'S PRIZE ESSAY.

By F. O. Stoehr.

In any discussion it is well to begin by defining one's subject matter, and more especially this is necessary in the present instance, the word infection being used in two distinct senses, and in each vaguely. The term infectious has long been, and still is, applied to those diseases which are supposed to spread from one subject to another. An infection accordingly means in the first place the transmission of such a disease, or, more properly, of the cause of the disease. Confusion comes in, however, as to whether infection is simply transmission of the cause of the disease, or a certain sort of transmission. Until the middle of this century infection was the general term under which were included contagion in which the disease spreads by contact, and miasma, in which it spreads by a poisoning of the atmosphere. Lately, however, the term miasma has dropped out of use, and the word infection has taken its place; and again, it has come to be thought that infectious diseases are transmitted in every case by the contact of solid particles with the animal whom the disease attacks. Hence infection and contagion are sometimes regarded as identical, sometimes they are opposed, and sometimes, again, contagion is classed as a sort of infection.

The second sense in which the word is used is due to the theory of the bacterial origin of the infectious (*i.e.*, transmissible) diseases. This theory having been proved in many cases, infection came to stand for the entry of bacteria into the body. But now it was shown that diseases not generally counted as infectious were due to bacteria, and the term infection was extended to the entry of these bacteria no less than the others, it being for the bacteriologist an accident whether the disease is in the usual course of nature transmissible or not. But here again there is confusion, for infection is said to take place sometimes when the bacteria comes into contact with the mucous membranes, sometimes only when they invade the tissues, and sometimes only when they succeed in causing the disease. There is authority for each of these uses of the word, and perhaps this multiplication of meanings, so long as we realize it, does no great harm. At any rate, the object of this essayist is not to decide on matters of dispute, but merely to relate something of the work by which the bacterial nature of infection has been established, to discuss shortly how far it has been established, and to what diseases the conception can be applied, and, finally, to give some account, or rather a very brief summary, of how in the last few years the question has been probed more deeply by an investigation not only of the action of the bacteria on the organism, but also of the reaction of the organism to the bacteria.

The first point to be established is that certain diseases are caused by micro-organisms. The most direct and satisfactory way of proving this is by isolating the organism and causing the disease with it in some animal. Unfortunately there are many diseases, presumably of bacterial origin, in which the causative organism either cannot be found or cannot be isolated. Hence it becomes necessary to ask for some proof starting from theoretic grounds by which we may at least know in what cases to expect to find organisms. Such a proof was furnished so long ago as 1840 by Jacob Henle, and with such brilliant inductive power that hardly any suggestion made in it needs serious alteration at the present time. Hence I offer no apology for translating some sections of the original paper on account, not only of their historic, but also of their actual, scientific value.

It is hard to appreciate Henle's work unless one realizes what a hopeless puzzle infection was to the men before him. It is true that the idea of a contagium vivum was as old as a certain Athanasius Kircher who mistook blood corpuscles for small worms (others say that it dates back even to Paracelsus), and theories enough have been built up on grounds more or less insufficient. Yet of these theories none gained credence among the most careful thinkers. Henle himself says that at the beginning of this century infectious diseases furnished the last stronghold of teleology as a scientific explanation. How true this is may be seen by an extract from an essay by Sir Gilbert Blane (F.R.S., Member of half-a-dozen Foreign Societies, First Physician to the Queen) in 1822.

"The subject of infection is one of the most difficult of investigation that can be found in nature. Considered in its origin, its course and its final purpose, no department of nature is so inscrutable, intricate and obscure, forming a contrast with that constancy and simplicity observable in other branches of natural knowledge. How and why a secretion of exhalation proceeding from the whole or part of a diseased body should excite the like action in the whole or the corresponding parts of another body seem to be problems beyond the reach of the human mind to resolve. With regard to its production, it seems to bear some analogy to the healthy functions of digestion and excretion. With regard to its final cause it would be still more presumptuous to pronounce. As infections are generated and propagated by offences against bodily and mental purity, may not the resulting diseases be considered as so many sanctions instituted by Providence for the chastisement of human depravity? I am more inclined to view the matter in this light than to think with an eminent author (Malthus?) that they have been ordained as a means of keeping down population to subsistence."

In 1837 there were published two researches which were the immediate predecessors of Henle's work.

1. Cagniard-Latour and Schwann announced that yeast cells are the causes of fermentation.

2. Bassi described a kind of fungus which he thought must be the cause of an infectious disease (the muscardine) of silkworms.

Now comes Henle's Essay.

Epidemic and endemic diseases seem often to stand in no relation to the atmosphere (the changes of which are held to be the most common external cause of disease). When we consider further the wanderings of epidemics, and the observed fact that chemical substances can destroy their power, we are led to the assumption that mixed with the air, and poisoning it, is a material which can be transported, separated and destroyed.

This assumed substance corresponds to the generally-received notion of a miasma (the polluting stuff), but when we come to ask more about this miasma, we find that absolutely nothing more is known of it. Our only ground for asserting more about it is its relation to and possible identity with contagion (contagion being defined as a material, formed by the agency of a disease, which induces the same disease in others); for some diseases are both contagious and miasmatic.

Having thus more or less defined contagion and miasma, he proceeds to divide endemic and epidemic diseases into three groups:—

1. Entirely miasmatic—ague.
2. Miasmatic—contagious—contagious exanthems, *e.g.*, small-pox, measles, scarlet fever, typhus, etc.
3. Purely contagious—syphilis, scabies and others.

Since he has set before himself the investigation of miasmata by comparing them with the contagia which have the same effect, it follows that it will be best to begin his enquiry with a consideration of the miasmatic-contagious group.

But, again, miasma is only a hypothetical substance by which infection may be accounted for where no contagion can be proved. Hence he considers the contagion of the miasmatic-contagious diseases first.

Contagion is divided into fixed, which can only be transferred from one animal to another by direct contact, and volatile, which can be transferred through the air.

Volatile contagion seems to proceed from the skin and lungs, of which the one gives off a fine dust and the other a gas. Hence it may be suggested that the contagion appears volatile because its vehicle is volatile.

In contagion he notes four chief characteristics:—

1. The contagion is taken up by some mucous membrane, or, in artificial inoculation, is planted in a known spot.
2. There is a latent period.
3. Activity of the contagion is shown (1) by fever, (2) by inflammation either local at point of inoculation or diffused.
4. The pus or the cast-off epithelium contains the cause of the disease, and more than was originally inoculated; and the quantity of it (as shown by its power of causing infection) varies directly as the extent of the inflammation, *e.g.*, small-pox, in which the vesicles are separate, is less contagious than where they are confluent.

He now proceeds to the proof that the contagion of miasmatic disease is—

A. Organic.

B. Alive and has individual life.

A. It may be considered to be organic since chemists have found organic matter in the air contaminated by the subjects of miasmatic-contagious disease.

B. Proof that the material of contagion is not only organic but also alive and possessed of individual life.

1. The power of multiplying by the assimilation of foreign substances is found only in living organic beings. No dead chemical substance, organic or not, multiplies at the cost of another substance. The most such a substance can do is, when brought together with another, to form with it a compound from which the original quantities of the interacting substances can again be separated.

Fermentation may be cited as a refutation of this, but it has lately been shown by Cagniard-Latour and Schwann that fermentation is the decomposition of an organic fluid by the agency of vegetable organisms, viz., the lower fungi, which grow at the expense of carbon and sugar containing fluids, and thereby decomposes the sugar, etc.

2. What is true of ferments is also true of contagion, that the amount of the effect stands in no relation to the amount of the ferment or contagium applied to it.

3. The exactly typical course of the miasmatic-contagious diseases, and the similarities in the course of corresponding epidemics, seem of themselves to point to an independent periodic development (*selbst-ständige zeitliche Entwickelung*) of the cause of the disease, such as is only found in living bodies.

Since direct proof by visible demonstration of contagium is not to be had, he now proceeds to test his hypothesis by tracing step by step the progress of a miasmatic-contagious disease, and asking how far this can be translated into terms of his hypothesis. This argument may shortly be summarised as follows:—

1. Infection takes place by the mucous membranes, and in the same disease constantly by the same mucous membrane. This is a way by which particles from outside might be expected to enter the body.

2. The stadium latentis contagii, during which there are no symptoms. This may correspond either to the development of the parasites, or to their multiplication until they reach sufficient numbers to produce symptoms.

3. Inflammation or gangrene occur. Gangrene seems to be due to intensity of inflammation. Gangrene is closely allied to putrefaction, and this has been shown by Schwann to be associated with the development of infusoria.

4. Fever and general symptoms either follow the inflammation in the same way as they follow non-parasitic inflammations, or they are due to changes in the blood or organic substance, at the expense of which the supposed parasites multiply. He considers the second explanation the more probable, since the inflammation is often inadequate to account for the severity of the fever, and also because cases in which there are no general symptoms are not protected against a second attack.

5. Recovery corresponds to the death or stoppage of growth of the parasite.

Henle has now shown that contagion—

1. Has individual life.

2. Reproduces itself after the manner of plants and animals.

3. Can increase by assimilation of organic substances.

4. Lives as a parasite on the diseased body.

The next question is as to the form of this parasite :—

"It is one of the laws of human phantasy that we must ascribe to the contagion, as soon as we reckon it to be something living, one of the forms which the known organic world presents to our senses. Hence in the earlier childish times of research one thought of insects, and when the microscopic animals were discovered, the infusoria could on still better grounds be accused of being contagion and miasma. At the present time, since the conclusions that have been arrived at with regard to the fungus of muscardine and other diseases, it seems more likely that the contagion belongs to the vegetable world, because the extensive distribution, the rapid multiplication, and the tenacity of life of the lower microscopic vegetable beings, as well as their mode of action on the bodies which they have selected as the seat of their vegetation, present, in fact, the most remarkable analogies with the infective material of the miasmatic-contagious diseases. Muscardine also arises in stagnant marshes, apparently independently, as if it were due to miasma; under the influence of heat and drought it becomes epidemic and contagious. Towards the cessation of the epidemic the contagiousness diminishes and is eventually lost. Currents of air carry the contagion over long distances, so that the disease appears again in another place under the aspect of a miasmatic affection. The contagion is an æriform, and at the same time a fixed body. It can be inoculated. Its power is destroyed by the ordinary disinfectants. It retains its power for years in a dry state. An imponderable and incommensurable quantity of it is sufficient to set up the disease, and even to produce devastating epidemics."

The next section of the argument adds nothing positive to the proof already gained, but it is worth transcribing for this at least that it anticipates almost word for word the famous bacteriological canons of Koch.

If with the means now at our command the question of contagion could be satisfactorily settled by observation, a proof starting from theoretic grounds such as I have attempted would be superfluous. But unfortunately no strict proof from positive observations is possible. Granted that living and moving small animals or distinct plants are found in contagious matter, still they may here, as in laudable pus, and in all animal secretions, be accidentally present after these have for some time been exposed to the air. And even if they were found constantly in contagious material within the body, still the suggestion would be possible, and for the present hardly to be contradicted, that they were only parasitic, even though constant elements in the contagion. That they are really the essential element could only be empirically established if one could isolate on the one hand the organisms, and on the other the fluid of contagion, and observe the working of each separately, an attempt which one may well boggle at.

On the other hand, these negative results are not certain enough to make it necessary to give up a hypothesis which, owing to the universal ideas which we associate with life, appears necessary. It is not even necessary to assume that the organisms which act as contagion are too small for our optical means. For experience has shown how hard it is to distinguish the smallest animals or plants from the cells, nuclei and granules which occur in so many tissues and excreta, and indeed this may be possible only at certain stages of their development. In fact, Schleiden and Schwann have shown that the first beginnings of the most different organic forms are in every respect the same. The most complicated forms are built up by a development from a single cell. But this discovery brings new difficulties because the idea of individual becomes relative. *e.g.*, ciliated cells have a life apart from the whole organism. Still more have spermatozoa, and it may be maintained that these only ultimately die for want of nourishment. Again, tumours, *e.g.*, cancers and melanotic growths spread along the lymph and blood-vessels and set up secondary growths in the most distant parts. Again, it is known that pus cells set up metastatic abscesses, and tubercles not only are carried to distant parts but most probably are contagious. The same reasoning might apply to miasmatic-contagious diseases, and hence we have another suggestion, viz., that contagion consists of animal elements developed and isolated by disease, and arriving at a certain degree of independence.

This is improbable in the case of miasmatic-contagious diseases because—

1. We know no element in the higher animals which can maintain life apart from the body, either for a considerable time or after being dried.

2. If one could prove that a contagion can be formed outside the body as has been shown in the previous observation on the muscardine, such a contagion could only be a possibly undiscovered animal or plant.

But the question of the origin of contagion is closely associated with the enquiry concerning miasma to which he now passes on.

Miasmatic-contagious diseases may be preferentially miasmatic or contagious, but there is scarcely one which has not been proved to be both.

When one sees how the same disease is engendered, here by contagion, there by miasma, one cannot, in spite of the opposition of the schools, avoid the conclusion that contagium and miasma are of the same material.

He now proceeds to test this conclusion.

1. It is known that dried contagion preserves its properties for years.

2. But many epidemics though widely spread are not very contagious, perhaps because contagion takes place more easily when the infective material passes out by the skin and lungs than when it is excreted in the fæces. Thus non-contagious typhoid shows ulcers in the intestine, while the contagious form shows lesions in the air passages, skin and conjunctiva.

Another way of accounting for epidemics in which there seems to be no contagion, *e.g.*, cholera and influenza, is by supposing the possibility that the infecting material may multiply and reproduce itself outside the body, and thus necessarily to suppose it alive.

This hypothesis can be supported by a consideration of the origin of miasmatic-contagious diseases.

(*a*) The origin of epidemics can frequently be traced to the putrefaction of large masses of animal or vegetable material. But putrefaction and mould are nothing but the decomposition of organic matter by infusoria or fungi. Hence it may be argued that miasma is caused by infusoria.

This hypothesis has no solid ground so long as the only thing known of miasma is that it arises from stagnant water. For in how many ways could not this give rise to disease? But the matter becomes very different when miasma is recognised as identical with contagion. (Hence he cannot apply his reasoning to ague, and it is noteworthy that this disease is wanting in the other marks on which most stress has been laid, *e.g.*, it is rhymetic but not "typical." There is no exanthem. It is never epidemic or pandemic, but always endemic.)

(*b*) The growth of the material of miasma is affected by the same materials and in the same way as the growth of lower organism, *e.g.*, warmth and damp are favourable to the outbreak of an epidemic.

Thus Henle, after first proving his thesis for the contagion of miasmatic diseases, has strengthened the proof by presenting miasma as contagion multiplying outside the body.

He now proceeds to enquire how far this hypothesis can be applied to the contagion of purely contagious diseases.

In these he finds (1) that the contagion is not volatile or only slightly; (2) the course is not typical, but (3) The contagion increases within the body.

Hence we should hope to be able to isolate a contagion which (1) would not be able to pass through the air, (2) after once developing would not complete its effects in a single generation, but persist and continue to reproduce itself in the same body.

In scabies these conditions are exactly fulfilled; also in foot and mouth disease. Syphilis is certainly contagious, but in other respects its position is uncertain.

This negative result is, however, not decisive, and, as in miasmatic-contagious disease, the contagion may be alive and yet an element of the diseased body, *i.e.*, it may have qualified life. Thus we are presented with the same alternative as in miasmatic-contagious disease. In this the hypothesis of absolute life seems preferable because the infective material seems to multiply outside the body; but in purely contagious diseases it does not. It might, therefore, in this case seem preferable to consider the contagium as having only relative life.

But if now we compare these diseases with cancer, tubercle, etc., in which we suppose the cause to have this relative life, we see that in two respects the contagious diseases are more nearly alive to the miasmatic-contagious than to cancer, etc.

1. The contagious matter can be dried.

2. The disease always spreads by contact; it never seems to break out spontaneously.

Examining the appearance and course of the purely contagious diseases, he finds that they resemble on the whole the miasmatic-contagious, differing chiefly in being more chronic and more local.

Hydrophobia belongs to infectious diseases because the poison multiplies in the body. But it seems to break out spontaneously, therefore, Henle puts it in the class in which the causative substance has relative life.

In the conclusion, there is a passage too striking to be missed: "It is an unfortunate fact that in the whole extent of this matter there is scarcely an opinion which is not founded on experience and again contradicted by experience. In these circumstances one might advise theory to wait until experience is riper; but I rather think that experience in order to ripen needs the light of a reasonable theory; for Nature only answers when she is asked a question, or more truly, she speaks to us constantly and with a thousand tongues, but it is only the answer to our question that we hear."

Henle's arguments have never been refuted, and may surely stand as types of an induction masterly both in its brilliance and in its caution. But as a matter of history, the first man to isolate and describe a pathogenic bacterium and to show its causal relation to a disease was a French physician, Davaine; and the suggestion of this causal relation came to him not from the theories of Henle, but from Pasteur's work on the butyric ferment.

The bacillus of anthrax is remarkable for its large size, and the ease with which it can be grown outside the body and made to reproduce the disease in animals. Hence it is not wonderful that it should be the first in which the causal relation of micro-organisms to disease has been investigated. As the first in the field it has thus a certain historical interest. Again, owing to its priority, it has served more than any other organism as a battle ground for conflicting theories; and, owing to its qualities, the practical difficulties of seeing, growing and inoculating it have been comparatively small. It is true that by taking this as our type we miss the unity and completeness of demonstration which is afforded by, *e.g.*, Koch's work on the tubercle bacillus. But Koch's work does not lend itself easily to obstruction, and an excellent English version of it is extant and is easily obtainable. (Essays on Micro-organisms in Disease, New Sydenham Society, edited by Watson Cheyne.)

(*To be continued*).

Passim.

On Thursday, May 19th, at Hawarden Castle, the Rt. Hon. William Ewart Gladstone, aged 89.

By the death of Mr. Gladstone, Guy's Hospital loses its Senior Governor. He became a Governor in 1835, and ever since that time, practically during the whole of his life, he was intimately connected with the welfare of the Hospital. His last great act for the good of Guy's was to write in October, 1895, a public appeal for funds. The immediate and universal response to this was practically the foundation of the Sustentation and Re-endowment Funds, which His Royal Highness the Prince of Wales has since so energetically supported.

The last time Mr. Gladstone visited Guy's was in 1889, when he came down to open the College, and no doubt most Guy's men know the familiar photograph of him standing in the doorway with Dr. Perry. But in his earlier days he was a much more frequent visitor, as was also Mrs. Gladstone, who might often have been seen visiting the wards. It is an interesting fact also, and perhaps not generally known, that his daughter, Miss Helen Gladstone, was taught pharmacy in the Hospital Dispensary.

On May 4th, Lord Lansdowne announced that in future the Army Medical Staff and Medical Staff Corps would be enrolled into a single corps, and Her Majesty had consented to bestow upon it the title of Royal Army Medical Corps. In this corps men are to hold rank from lieutenant to colonel, and have that position and authority fully recognised in the corps.

Surgeon-Captain Rawnsley, who has written us a note on the subject in another column, says that all the objections to the Army Medical Service are now swept away, and the best men should feel tempted to join that service.

We have not been able to master all the details of the new scheme, but it appear to us, that with the exception of the title "Royal Army Medical Corps" things are pretty much as they were. To rank from lieutenant to colonel is no new thing for medical men in the Army, and personally we do not think that it is absolutely necessary.

What appears to us would still be an improvement is that Army doctors should, as of old, be attached to their own particular regiment instead of being tied to a depôt or barracks. In that system, formerly, the doctor was one of the Mess wherever the regiment went, and if he was a man at all, he was, from his unique position, the confidant of many and the friend of all men, and things worked smoothly from all accounts. The authorities state that the old system was too expensive and promotion too slow. But do the advantages of the new *régime* make up the lack of regimental friendship under the old style?

We have been asked by the secretary of the Clubs' Union to appeal to past or present Guy's men for photographs of cup teams, football, cricket or tennis, more especially winning ones. These will be hung up in the pavilion at Honor Oak Park, and the more complete the series the better. Will any men who have such photographs, and could spare them, kindly send them to the Clubs' Union secretary, either at Honor Oak Park or the hospital?

At Honor Oak Park on Saturday, an unusual thing happened. In the cricket match v. the Crystal Palace, four complete innings were played out in a short afternoon's game. The wickets were terrible, and the bowlers had it all their own way, as will be seen in the account of the match in the Sports column.

The dressers' room has for the past year or two been gradually getting more and more dilapidated from slight injuries on festive occasions, and this week a crushing blow has been inflicted on its appearance. The top of the big round table has been wrenched bodily off, and a lot of crockery smashed. The crockery has been replaced, but the table still remains in its damaged condition. We hope it will be speedily repaired by those who are responsible for the accident, for the rooms are not overloaded with furniture fit for use.

Apropos, it is a pity that it is not more generally understood and recognised that the dressers' room is not a lounge for the hospital in general. It is intended for all dressers, and

the ward clerks of the taking-in firm, H.-S.'s, H.-P.'s and senior men. It is very annoying for a tired H.-S. to drop in there and find all the papers being read by ex-surgical ward clerks and others of like station, and not a chair for his weary limbs. When the junior men grow up they will acknowledge the justice of the reminder.

Mr. A. D. Fripp is to be married on Wednesday, June 8th, to Miss Haywood, of Reigate, at Reigate Parish Church.

We print in another column a letter from Mr. F. G. Hopkins, thanking the men for his wedding present. By a most unfortunate mishap it was omitted from our last number, and we must apologise to Mr. Hopkins for the delay.

The results of the last Cambridge D.P.H. Examination are eminently satisfactory to those who work in the Public Health Department at Guy's. In all 30 men went up, and of these 17 passed and 13 failed. From Guy's 6 went up and 1 failed, or, to put the result in a table:

	Passed.	Failed.
Total	17	13
Guy's	5	1
Other Institutions	12	12

From the above figures it is seen that the percentage of successes at Guy's was 81 per cent., at other institutions (taking the average) only 50 per cent. The moral is obvious.

The second Annual Concert of the Nurse's Choral Society took place last Tuesday, and was an unqualified success. All the seats were sold, and the room was full. Those who were responsible for the Concert are to be heartily congratulated on a really good evenings' music. A fuller account with criticisms will be found in another column.

It has been definitely decided that the Sisters in the Hospital cannot attend the Residents' Dance on June 10th. It is not for us, not knowing the reasons, to criticise this decision, but, nevertheless we think it is a great pity.

The Water-Polo team seems for a season to be suffering from a lamentable lack of keenness. We are told that many men who could play if they chose have not aroused themselves sufficiently to do so. This is serious, for the water-polo team has always been so uniformly keen and successful. It is to be hoped, for the men's sake and the sake of the hospital, that there will be an early improvement in the attendance at the practices and matches.

The Guy's Hospital Colonial Club, of which we publish a notice elsewhere, should be an unqualified success. If any body of men really need to form a club it is the Colonial men, and we are proud to say some of the best and most popular men at Guy's at the present time come from the Colonies. We wish the club the best of luck.

The controversy respecting the proper pronunciation of the word Angina, which Dr. Goodhart unwittingly started in a clinical lecture some weeks ago, is, to all appearances, fairly settled in this number. On another page we print a letter from a learned classical correspondent who brings forward potent and conducive auguments in favour of a short "i," and Dr. Goodhart is vindicated. The letter has given the printers some trouble, and we hope readers will condone any small misprints as classic learning is of rare occurrence in the Gazette nowadays.

Will all men desirous of joining a Guy's Masonic Lodge kindly communicate with "Freemason," c/o Gazette.

Guy's Hospital Colonial Club.

A meeting of Guy's men born in India and the Colonies was held in the assistant surgeon's room on Thursday, May 12th. Mr. Symonds took the chair, and Dr. Anderson, an old Guy's man, practising in Grahamstown, South Africa, was also present, while the Colonial Empire was adequately represented by a numerous gathering.

It was decided to form a club, to be called the "Guy's Hospital Colonial Club," the membership of which should be open to all Guy's men identified with the Colonies, either by birth or emigration.

On proceeding to the election of officers for the ensuing year, Mr. Symonds was unanimously elected president, F. S. Batchelor, vice-president, and F. G. Gibson, hon. secretary.

The club has at present no large scheme of Imperial Federation in hand, its aim being to promote good fellowship among a large and increasing body of men who have a common, if varied, interest in "Britain beyond the seas."

With this view it was decided to hold an inaugural dinner at Frascati's on Wednesday evening, June 15th, at 7.30 o'clock, when the president will take the chair. Those who wish to become members of the club and to be present at the dinner are requested to communicate with the hon. secretary.

Rinderpest:

Its Pathology, and the means used to combat its Invasion of South Africa.

Abstract of the Annual Presidential Address to the Cape Town Branch of the British Medical Association, delivered by the Vice-President,

George Turner, M.B. (Cantab), M.R.C.S., D.P.H. Medical Officer of Health for the Colony of the Cape of Good Hope; late Lecturer on Hygiene and Public Health at Guy's Hospital.

(Continued.)

Experiments show that bile in the early stage of the disease has little protective power.

The bile does not appear to possess any immunising properties during the first three or four days of the disease, and Professor Koch recommended that it should be taken on or about the seventh day.

Another recommendation was that the bile selected should be of a bright green colour, showing, when shaken, a white froth, and should be without smell.

Koch's recommendation was made rather to prevent the use of decomposed biles, which, giving rise to abscesses, often failed to immunise, than to any belief that the colour was really material. In fact, he himself, immunised animals with biles of various shades of colour.

Dr. Koch hoped that, by the addition of virulent blood to normal bile, an immunising fluid might be manufactured, because if such a mixture was allowed to stand twenty-four hours, animals injected with 10 c.c. did not suffer with rinderpest. Unfortunately, however, they were not rendered immune thereby.

I have repeated these experiments with the same result, and have also shown that the substances in normal bile which destroyed the organism, for it is evidently destroyed, were the bile salts.

The bile also contains a small quantity of chemical substance, which confers a passive immunity. This is shown by the fact that, though animals injected with filtered bile always take the disease when afterwards injected with a small dose of rinderpest blood, about half of them recover.

My present opinion as to the manner in which the bile from a rinderpest animal acquires the property of immunising is as follows;—

The mucous membrane of the gall-bladder of an animal suffering from rinderpest is always inflamed. There are small petechiæ on the course of the veins, hence blood continually enters the bile in small quantities, either directly or by passage through the walls of the vessels. Under ordinary circumstances the bile would destroy the virus, but as that which enters the bladder has been for some time confined in the immediate neighbourhood of the gall, and in liquids which have been gradually more and more impregnated with gall, it has become habituated by degrees to live in a fluid containing bile salts, and has in so doing become attenuated.

It has been pointed out to me that the bladder is continually emptying itself, and that therefore there would be no time for the organisms to become acclimatised. But probably the acclimatisation is accomplished before the organism actually enters the bladder.

That the attenuation is more probably due to the bile salts than to the antitoxin is shown by the destructive effect which normal bile salts exert upon the virus.

When first Professor Koch demonstrated the novel possibility of immunising cattle from rinderpest by using the gall of an animal which had been suffering from the fever for six days, it was surmised that the gall itself or the animals subjected to its influence might impart the disease to others.

This very natural fear caused those who had the direction of the preventive measures to confine the gall inoculation to herds already infected, or which were in the immediate neighbourhood of infection.

Koch himself was decidedly of opinion that the gall would not give the animal operated upon rinderpest, and based his opinion on the fact that, during the time he was experimenting at the Victoria Compound, not one animal of those injected with various samples of gall became infected.

Subsequently, it is true, animals did suffer from rinderpest at the station after inoculation of gall, but at that time the station had become the most highly infected area in the whole of South Africa, and the wonder is, not that some animals did contract the disease, but that this accident did not occur with the majority of those brought on to the ground. Even the animals given us for experiment were not free from suspicion, and on four occasions these were found to be suffering from rinderpest, and consequently useless for experimental purposes.

Shortly after the use of rinderpest gall had been in practical operation, facts were observed which were construed as demonstrating that bile was capable of producing the disease in a fatal form. Reports were received showing that in herds which were declared free from infection at the time of inoculation, the disease appeared subsequently, generally on or about the tenth day, and this belief led to the practice being confined still more closely to areas in which it was feared the pest would soon make its appearance, and in our opinion acted most detrimentally by preventing the formation of a wide area or belt, occupied only by animals protected from rinderpest by inoculation, between the infected areas and those still free from pest, a project which Koch advocated and hoped to see realised.

In fact, instead of commencing at a distance from the disease and inoculating in a direction towards the disease, the reverse process was followed.

This the following extracts from statistics will make plain.

Koch operated on 135 animals on March 12th at Talpan. Only one animal died, a beast which was

infected at the time of inoculation; none of the others showed any signs of the disease.

Dr. Turner and Dr. Kohlstock operated on 83 animals at Klippiesdam on April 6th, and though three samples of bile were used separately, none of the animals showed any symptoms indicative of rinderpest.

If the reports of the veterinary surgeons and others are examined, the cases in which similar results were obtained are very numerous. The fact, however, that disease did undoubtedly follow the injection, even when precautions had been taken to preclude the possibility of previous infection, was allowed to weigh against these observations, and a *post hoc propter hoc* line of argument was followed, although these very experiments, even those which were successful, were necessarily carried out, until quite lately, in highly infected areas—a condition which interfered with their value as crucial experiments whenever the disease followed inoculation.

Dr. Turner had, as far back as April last, requested permission to try the experiment on a large scale under conditions which would, as far as was humanly possible, preclude any risk of the experiment being vitiated by the previous infection of any of the animals. For reasons we have no desire to criticise, this permission was withheld until July 13th, when Dr. Smartt and others at Britstown placed herds of animals, numbering in all 160, at the disposal of the Government for experiment. These animals were, on account of the great prevailing drought, in a very impoverished condition. They all received 10 c.c. of rinderpest bile, but not one showed any symptoms of the disease in consequence.

Dr. Koch showed by experiment that virulent blood mixed with the gall of a rinderpest animal in large proportions and injected into a healthy animal failed to produce rinderpest. This experiment has been repeated, and it has been found that, until the blood and gall are mixed in equal proportions and injected, very shortly after mixing, into a healthy animal, there is practically no chance of infection following.

This experiment is of importance, because even if a particular sample of gall were capable of infecting, as the bile used among large herds is necessarily a mixture obtained from several animals, its mixture with samples incapable of imparting the disease would probably deprive the one dangerous sample of its power of infecting.

That the animal undergoing immunisation by means of gall is no source of danger has been proved over and over again by leaving animals unprotected by bile inoculation to graze with numbers of others undergoing that process, and also by injecting into a healthy animal blood drawn from beasts in course of immunisation at various stages.

Feeding with rinderpest gall and smearing the nostrils with the fluid are equally devoid of danger. Indeed, the introduction of large quantities of the bile into the alimentary canal appears to excite a certain protective action.

Perhaps, however, the best evidence which can be brought forward to show that rinderpest gall is harmless, is to be gathered from the reports of those inoculators who assert that it has actually caused the disease, and who attempt to bring forward facts in evidence of that assertion.

Taking, for example, the following return made by the veterinary surgeon on May 31st, we have 918 animals operated upon, of which 19 became sick and 9 died. That is to say that 98 per cent. of the animals were immunised.

One of the most instructive examples is contained in a letter published in the *Diamond Fields Advertiser* of May 18th, 1897. This shows that animals left without the application of Koch's process died at the rate of 82 per cent., while those thus treated died at the rate of 20 per cent.—a saving of 62 per cent.

In these experiments we have three factors: the operator, the gall, and the herd. The two first were identical in each case. The third, the herd, was subject to variation, yet the difference in the results is by some process of reasoning attributed to one of the two factors which did not vary, and the variable factor is disregarded. We can only say that this mental process is incomprehensible to us.

The large number of cases in which the injection of gall, even in infected areas, was not followed by the disease, and the result of the experiment at Britstown, are in our opinion evidence *that the gall itself cannot communicate rinderpest.* This is a fact to be much regretted, because were this possible, then the immunity conferred by the bile would be of a much greater duration than it has proved to be.

The fact that the disease so often appears on or about the 10th day after bile inoculation is capable of a very simple explanation.

The animals are generally driven into a kraal before the operation. Should only one of these animals in the herd be in the first stages of the disease, although it may roam over the veld without doing much harm, it immediately infects several others when shut up with them. The men who cast the animals frequently seize them by the nose to hold down the head, and in this way help to spread the infection very surely.

This risk happens whenever the herd is situated in an area subject to infection, and will occur in all cases, even when the operator has taken care that he and his assistants have not been infected while taking the bile from the diseased animal, and have properly cleansed the bottles and instruments, and *as the bile does not protect until the fifth or sixth day after injection, there is plenty of time for infection to take place.*

Notwithstanding these drawbacks, Koch's method has produced results of the greatest service to the colony. Sir Godfrey Lagden informs us that in Basutoland, an infected area, out of 100,000 animals injected, 70,000 have been saved and are still free from the disease, and undoubtedly but for this method we should not have been afforded the time necessary to work out a better one.

(*To be continued.*)

The Royal Army Medical Corps.

AT the dinner given on May 4th, at the Mansion House, by the Lord Mayor to the medical profession, the Marquis of Lansdowne, Secretary of State for War, in responding to the toast of "The Army" announced the final decision that has been come to with respect to the medical services of the army. In future the Army Medical Staff and Medical Staff Corps will be known as "The Royal Medical Staff Corps." In a previous issue we ventured to hope that Her Majesty would give to this corps the title of Royal. This mark of the royal favour has been graciously conceded by the Queen-Empress. It is an honour, not only to the medical services of the army, but to the whole body of the medical profession.

Now that this new royal corps has been approved, we hope to see, as in the case of the Royal Artillery and Royal Engineers, a colonel-in-chief thereof, and Guy's men know who they would like to see occupying this position, namely, our royal president. The rank of the officers of this corps will be from lieutenant to colonel.

On reading the Secretary of State for War's speech, we are glad to see it laid down that the members of the medical profession in the army are "none the less soldiers in the fullest sense of the word," and also that "the War Department was determined that there should be no failure of either theory or practice to treat the medical profession with the respect and consideration to which they were entitled." "Above the rank of colonel the rank of surgeon-general would be retained with the rank and precedence of a general officer in the army," the reason being that no one in future is to hold the title of general unless fit to command troops in the field. As this rule applies to all the other departments of the army alike, we can see the justice thereof.

In helping to bring about this desirable result and happy ending to the troubles of the medical officers of the army, we cannot conclude this article without many words of thanks to the distinguished and illustrious Guy's man who has played an important part in the proceedings, namely, Sir Samuel Wilks, the worthy president of the Royal College of Physicians. Guy's having thus helped to gain the present happy state of affairs, should contribute to the maintenance thereof by sending a large contingent of its best men to compete for the Royal Army Medical Corps at the next competition examination in August. Those who pass will never regret their choice. This is a duty we Guy's men owe, not only to the nation, but to Sir Samuel Wilks, who stands pledged to aid the government, now that the necessary reforms are granted, in helping to secure a good supply of candidates for the army. G. T. R.

ARMY MEDICAL STAFF.

GOVERNMENT PROPOSALS.

The Lord Mayor entertained a large and representative gathering of the medical profession and other guests at dinner at the Mansion House on May 4th. Among those present were the Marquis of Lansdowne, Lord Russell of Killowen, Lord Lister, Lord Shand, Sir Samuel Wilks (President of the Royal College of Physicians), Sir William MacCormac (President Royal College of Surgeons), Sir William Turner, Sir George Duffey (Ireland), Sir Benjamin Brodie, Sir Cameron Gull, M.P., Sir Henry Norbury, Sir T. Grainger Stewart, Sir William Broadbent, Sir Henry Thompson, Sir William Priestly, M.P., Sir Charles Cameron, M.P., Sir Walter Foster, M.P., Sir Dyce Duckworth, Sir William Porter, Sir J. Andrew Clarke, Sir Arthur Wells, Surgeon-General Jameson, Major-General Hooper, and the Master of the Society of Apothecaries.

The loyal toasts having been drunk with great enthusiasm,

The LORD CHIEF JUSTICE gave "The Navy, Army, and Reserve Forces," paying a special tribute of praise to the conduct of our Forces in India and Egypt.

Sir HENRY NORBURY (Director-General of the Medical Department of the Navy) returned thanks for the senior Service.

The Marquis of LANSDOWNE, who was greeted with cheers, thanked Lord Russell for his kind words, which he was sure would be gratefully valued by all serving in her Majesty's Army. As long as we had such men and such leaders there would be little cause to despair of the British Empire. (Cheers.) Our recent campaigns were useful because they showed us our weak as well as our strong points. Thus they had recently had their attention directed towards the boots which had been worn by the soldiers in Egypt. (Laughter.) Those boots did not have an easy time of it, and he trusted they might be able to invent a boot which even General Gatacre and the desert sand would not wear out. He gratefully acknowledged the debt which the Army owed to the medical profession. In time of peace they helped to maintain the health of the troops in trying climates, and in time of war they assisted them to combat the barbarity of their methods and to mitigate the nameless sufferings which follow in the wake of great battles. Their skill and devotion were the corrections of modern ruthlessness, and he thought that if they had to choose between the credit belonging to one who invented a new form of Dum-Dum bullet, and that belonging to the surgeon who could extract it and save the shattered limb, there would be no hesitation in giving the preference. (Hear, hear.) The Army was proud to know that it contained a number of officers belonging to the medical profession, but who were none the less soldiers in the fullest sense of the word—(loud cheers)—men who wore the Queen's uniform, and held her Majesty's commission, and were ready to take more than their share of the risk and hardship of warfare. (Renewed cheers.) The War Department was determined that there should be no failure of either theory or practice to treat the medical profession with the respect and consideration to which they were entitled. He insisted on this point because there had been signs of a certain estrangement between the army and the profession, and as a result they had

not been able to attract to the Service the number, and, he must add, the class of candidate, which they would like to see on the Medical Staff. Possibly there had been mistakes on both sides, but his Department was determined that the profession should have no further cause for complaint. (Cheers.) They were now about to deal, and to deal thoroughly, with a question concerning not only the Medical Staff, but the profession generally, He meant the rank and stations of the Army Medical Staff. (Hear, hear.) It had been said, "What did rank matter? Is not the title of doctor or surgeon by itself to be regarded as a title which anyone would be proud to wear without further adjuncts?" The answer was that in the Army rank is the outward and visible sign of consideration and authority, and that if a man adopted the military profession he should have a military stamp to distinguish him and to secure his proper place among his comrades. (Hear, hear.) Hitherto the department had not been particularly successful in dealing with the subject. They now proposed making a fresh start, and out of the Army Medical Staff and the Medical Staff corps, to form a corps, the officers of which would bear the same military titles as other officers in the Army (cheers)—always, of course, on the clear understanding that those titles did not confer on them any right of command outside of it. (Hear, hear.) It was proposed to give them these titles up to the rank of colonel. (Cheers.) He had been pressed not to stop there, but to go on to the rank of general officer. (Cheers.) But there were reasons which seemed conclusive against this. The present policy was to restrict as closely as possible the number of officers bearing the title of general, and to insist that no one should rise to it unless required to fill one of a limited number of appointments, all of which would involve general command in the Army, and fitness on occasion arising to command troops in the field. No departmental officer would under that system be able to reach the rank of a general officer, and it would not be conferred on members of the medical staff. Above the rank of colonel that of surgeon-general would be retained, with the rank of precedence of a general officer in the Army. (Cheers.) He had one thing more to add, and that was that her Majesty had been pleased to signify her intention of bestowing on the newly-formed corps the title of the Royal Army Medical Corps—(loud cheers) - a title which he was sure would be worthily borne. In conclusion, Lord Lansdowne expressed the conviction that the profession would send its best men into the new corps. The noble Marquis resumed his seat amid loud applause.

The LORD MAYOR then proposed "The Medical Profession," remarking that he believed it was the first occasion on which they had been specially invited to the Mansion House.

Sir SAMUEL WILKS and Sir WILLIAM MACCORMAC acknowledged the compliment.

Sir WILLIAM TURNER proposed "The Houses of Parliament," LORD LISTER and SIR CHARLES CAMERON returning thanks.

On the call of Sir G. DUFFY "The Health of the Lord Mayor" was drunk with great enthusiasm, and the LORD MAYOR having replied the proceedings came to a close.

The Skiagraphic Department.

THE skiagraphic apparatus—the advent of which was hailed with delight in this journal—can scarcely be said to have fulfilled expectations. The instruments and the room have been provided at considerable cost, printed forms are supplied on which the clinical features of the case and the special points to be noted are written out, and a handsome volume inscribed "Register of Skiagraphs," in which copies of all skiagraphs taken in the hospital are to be preserved, has made its appearance. So far so good, but what is the result of a year's work? Needles can be localized and extracted at Out-patient's, and in a certain proportion of cases the skiagraph has aided the diagnosis of fracture; but many of the negatives are spoilt because they are not properly developed, while many more, after being just looked at, are left about in the studio until they are utterly ruined, and no prints are ever taken from them.

As regards the permanent records of the hospital, the result has been practically nil. Probably not more than twenty or thirty out of the many hundreds of skiagraphs which have been taken will be found in the Surgical Reports for 1897, and when cases have been required for publication the skiagraphs have invariably had to be taken by professional photographers outside the hospital.

The reason is not far to seek. The necessary plant has been provided, but no responsible person has been put at the head of it. First the electrical clerks were entrusted with the work, but they changed every month, and many of them knew nothing about photography, and so the results were scarcely satisfactory. Finally, the supply of electrical clerks ran short, and the hospital electrician got possession, and matters drifted into the dismal muddle in which they now are.

A remedy must be found, and we would suggest that it is not very difficult to find. The electrician could look after the mechanical part of it, and the hospital artist would be pleased to print the necessary copies, but someone is required to superintend matters, and to see that two copies of every skiagraph are preserved—one in the Surgical Report and the other in the Skiagraphic Register.

There are certainly one or two men in the hospital admirably fitted for such work, and we believe that they could be induced to take the appointment for three or six months at least. Perhaps a small honorarium similar to that of the pathological assistant to the surgical registrar might be attached to the post.

At any rate, some reform is needed unless the money already spent by the hospital should be utterly wasted, and we respectfully call the attention of the authorities to the matter.

Nursing News.

Sister Stephen (Miss Irwin), Sister Lydia (Miss Hobhouse), and Sister Cornelius (Miss Dupuis) have resigned their wards. Sisters Stephen and Cornelius are leaving the hospital on July 1st, and Sister Lydia on August 1st. They are intending to start together in a Surgical Home at the West End. We wish them every success.

We regret to say that Sister Charity (Miss Godby) has been forced to take six months' sick leave by the advice of her medical attendant.

Nine years of hospital ward work, with only the ordinary holiday times, is a tax on the endurance of the most sturdy.

We heartily wish Sister Charity renewed health and vigour.

Sister Christine will take charge of Charity ward for six months.

Miss Rose Merritt, who has been on our private nursing staff since her training in the hospital, her entry dating from January, 1894, has been appointed Assistant Matron of St. Mary's Hospital, Manchester.

Nurse Goucher left us on April 9th and sailed for India on May 5th to take up her new work at the Sassoon Hospital, Poona.

Nurse Britton has been appointed Charge Nurse in the Park Hospital, Lewisham. She left us at the end of her three years' training on May 9th.

Nurse Way, who has worked in the hospital for five years, left on May 13th to join our private nursing staff. Probationer Collins has been promoted to be Head Nurse in Dorcas in her place.

Probationer Freeland has been appointed Head Nurse in the Eye wards.

Probationer Pullin has succeeded Nurse Seaman in Lydia.

The brass tablet in memory of Nurse Keogh is now ready, and is to be placed in the chapel, beside the one which was given in memory of Nurse Lindon some years ago, and opposite to the memorials of "Miss Burt, Mrs. Field, and Miss Lumsden."

Miss Higgins (Sister E. Frances), who died from plague on April 29th, at Kennedy Town Hospital, Hong Kong, was trained at Guy's Hospital; she was afterwards a sister at St. Marylebone Infirmary, and left for Hong Kong in 1890, being one of the six sisters selected at that time to go out to the Government Civil Hospital at that place. Miss Higgins was presented with the medal for her services during the plague in 1894. Great sympathy is felt that she herself has fallen a victim to the disease so fatal among the Chinese, to numbers of whom she gave such unremitting care and attention. Miss Higgins was home on leave in 1896, returning to Hong Kong in December the same year, and her untimely death is much regretted by all her friends at home and abroad.—*Hospital.*

The Nurses' Choral Society.

The second annual concert of the Nurses' Choral Society and Students' Glee Club took place on Tuesday, May 17th, and proved to be an eminently successful function, reflecting the greatest credit on everyone concerned. We say this, not with the idea of supporting local talent at any price, but with a clear conscience and as our honest opinion, which we have the very greatest pleasure in expressing.

The first half of the programme was filled by a cantata entitled, "St. Cecilia's Day," by one J. B. Van Bree, a singularly trivial and uninspired work, which received more than justice at the hands of the performers. For the rendering of the choruses we have little but praise; time and tune were alike excellent, while the attack was, save in one or two instances, precision itself. It were ungallant to criticise the quality of the ladies' voices, and we have no intention of risking personal violence by harsh comment on the gentlemen. The solo and chorus, "Give way now to pleasure," proved the most popular number, and received an encore, though for our part we considered the chorus, "Youth and Love," by far the best item and the best song. The solos were acceptably rendered by Miss Gomer Williams, but the lady was heard to considerably greater advantage in the second part. Mr. Taylor conducted with admirable firmness and distinction, and had his forces under complete control, the light and shade being throughout excellent.

The second part opened with a remarkably clever and well-written musical sketch, by Mr. Sydney T. Spalding, who displayed a pretty wit to the fullest advantage. This was followed by two part-songs by the choir, Eaton Faning's "The Vikings" and "Ye Spotted Snakes." In the latter the choir fairly surpassed itself, and gave a thoroughly sound and artistic rendering of that fine work. Miss Rook played two violin solos finely, displaying a splendid technique and much musicianly feeling. Mr. Parrott and Mr. Hicks were in good voice, and received encores for their songs, though both these gentlemen are inclined to lack life and vigour in their singing. Miss Gomer Williams sang Chaminade's "L'Eté" charmingly. The concert was concluded by the two glees, "Phyllis's Choice," and "Come Lasses and Lads," the sentiments of which latter pleased us much.

In conclusion, we cannot say too much for the admirable result of Mr. Taylor's careful training, and that gentleman is to be warmly thanked for a thoroughly agreeable entertainment. W. R. C.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

To the Students at Guy's.

DEAR SIR,—Will you give me space in your columns to return my sincere and hearty thanks for the extremely handsome present I received from the students at Guy's on the occasion of my marriage.

The gift took the form of a clock and a pair of very valuable martinware vases, which my wife and I will always look upon as the most valuable of our possessions. I trust that all who took a share in this generous and kindly treatment of me will accept this expression of my gratitude. If ever the Guy's legend can be felt to lose its truth it is when a Guy's man receives a gift from Guy's men, for none can then be so blessed as the recipient.—I am, etc.,

F. GOWLAND HOPKINS.

The New Assistant House-Surgeons.

DEAR SIR,—Might I suggest a name for the new appointments to the Assistant Surgeons. Is there any reason why they should not be called *surgical assistant?* It seems to me that this title exactly explains the scope of the new appointment. No one has found fault with the title of gynæcologist assistant, why should they with that of *surgical assistant?*—I am, Sir, yours,

H. S.

Angina Pectoris.

DEAR SIR,—Many of your readers may, with myself, have been perturbed by Dr. Goodhart's pronunciation, in the lectures you have recently reported, of the word Angina with a short i. The versatile editor of the *Guyoscope* indeed took up the cudgels on behalf of a long ī, referring for his authority to a book dated 1828. Dr. Goodhart has kindly given me the references on which he depended for his pronunciation of the word, and as the point may be of interest to others I venture to send them you for publication.

The first quotation is that given by the editor of the *Guyoscope*, in favour of a long i; but according to the scansion, the i may in this instance be either long or short, the second foot of the line being a dactyl or a tribrach.

Plautus, Mostellaria, 1.3.61.—

"In Anginam ego nunc me velim verti."

The second quotation, also from Plautus, is one of the worst lines on record, scanning by ear without rules, slurring a syllable and exhibiting a fine specimen of the hiatus; but it is conclusive for the short i.

Plautus, Trinummus, 2.4.139.—

"Sŭās | mŏrĭūn|tŭr ān|gĭnā | ăcār|rŭmā."

The other two quotations, both hexameters, are equally conclusive.

Lucilius, ap Non, p. 35, 9.—

"Īnspēr|āto ābī|īt quām u|na āngĭnă | sūstŭlĭt | hōrā."

Q. Serenus Sammonicus, 282.—

"Āngĭnă | vērŏ sĭ bī mĭx|tūm sălē|pōscĭt ă|cētūm"

(a good hint for house-physicians).

These are somewhat shady authorities; but the strongest argument is the derivation of the word from the Greek ἀγχόνη, meaning pressure; and the termination, corresponding to that in μηχανή, ἡδονή, is invariably short.

Finally, we have the argument of authority. The greatest is that of L. Müller, who gives the i short, and Roby, who refers to Müller, and whose opinion is generally accepted as final in matters of scholarship. White and Riddle, perhaps the most scholarly English dictionary, certainly refers to the above passages and yet gives the i long; but Lewis and Short, and the newest edition of Smith's school-edition give the ī short.

In a note to Professor Osler, Professor Gairdner writes that he never heard angina pronounced with a short i, until Dr. Houghton, of Dublin, corrected him. He then "made an elaborate enquiry into the classical authorities, and found that it comes out apparently clearly that the i is short, as in the first passage in Plautus' Trinummus, which has been annotated; so my colleague, Professor Ramsey tells me. Is it worth while to make the change."

The old editions presumably founded their long i on the analogy of doctrina, disciplina, and so forth, and there are only a few feminines formed in this way with a short i:—fiscina, fuscina, pagina, patina, sarcina, squatina, and runcina.

Obviously the short i has it. It will be interesting to see in fifty years' time whether it has got its deserts.—I am, Sir, yours truly,

PEDANT.

Christmas Tea at Out-Patients.

DEAR SIR,—It has been decided to give a tea on Christmas Day next, in the out-patient department of this hospital, to between 450–500 poor children of the neighbourhood. You may remember that a tea was given last Christmas which turned out to be a great success, and indeed I may say is even now a topic of conversation among the Borough children.

To enable us to successfully carry out the scheme and make it as great a success as the last, funds are urgently required, and we hope that all those who are connected with the hospital will both contribute something themselves, and also try and persuade their friends to do so.

Not only money, but also clothes are wanted, as each child on leaving the hospital after the tea will receive some article of clothing. Last year each student was asked to contribute 2s. 6d. towards the funds, and some gave more. By this means we collected about £12, so at a committee meeting held yesterday it was decided

that the students should be asked to subscribe the same sum. It does not follow that because a man is not asked for his subscription his 2s. 6d. is not wanted, for some must, out of the number present, be unavoidably passed by, so if those who wish to subscribe, but who are not personally asked, would send their subscription to the Editor of the GAZETTE it would be most thankfully received and acknowledged in the following issue.

Although many calls have lately been made on the generosity of those who are at present up here, it is to be hoped that that circumstance will not prevent their giving yet again, and so stretching out to us a helping hand. Last year we gave a tea, followed by a Punch and Judy show and two Christmas-trees. The Disguysed Minstrels also kindly helped us by giving a performance.

Each child, on leaving the hospital after tea, received a bag containing—½-lb. of tea. Loaf of bread. A packet of sweets. Fruit. Crackers.

Also some article of clothing was given to each. We hope this year to be able to give the same.

To those who have left us we also appeal for help, both as regards funds and clothing, which may be sent either to me or the editor of the GAZETTE. The ages of the children will range between six and thirteen years, and if possible the boys and girls will be of equal number.

A meeting was held in March, when Mr. V. E. Collins was elected chairman for the ensuing year, and I was elected secretary and treasurer.

A second meeting was held yesterday, when the following sub-committee was elected:—Sister Sarah. Sister Out-patients. Sister Surgery. V. E. Collins. T. W. Landon.

2. It was decided that each student be asked to subscribe 2s. 6d., as last year.

3. That those members of the committee leaving the hospital be asked to remain on the committee, and work outside.

We hope that all who can will subscribe, and try and help us to make the scheme as great a success as last year.

Hoping you will forgive me for taking up so much of your time and space, and thanking you for inserting this,—I remain, yours faithfully,

T. W. LANDON,
Secretary and Treasurer.

Pass List.

University of Cambridge.

EXAMINATION IN STATE MEDICINE.

PARTS I. and II.—O. Beven, W. E. Dixon, O. Eaton, W. H. Jewell, A. E. Larking, W. J. Lubeck, R. W. C. Pierce, S. Worthington.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES.

PART I.—S. E. Denyer, W. K. Wills.

A Guy's Masonic Lodge.

WE have much pleasure in announcing that a Freemason (a student) has undertaken, with the aid of others, to collect opinions, and if possible to form a committee of past and present Masons to discuss the desirability and possibility of founding a lodge at Guy's.

He, therefore, requests *all Masons resident as students* at the Hospital, and all those willing to support the movement who are not resident, to send him their names, lodges, and particularly their ideas, and some intimation as to the amount of assistance they could afford the lodge at its foundation, should one be resolved upon.

All letters addressed Freemason, care of Editor of GAZETTE, will be answered.

Reviews.

Oral Surgery. By E. W. Roughton, F.S., M.D. Lond, F.R.C.S. Eng. (London, J. P. Segg & Co.)

Mr. Roughton states in his preface that this book is intended chiefly for the use of dental students preparing for their final examination. He also says that a knowledge of pathology and the general principles of medicine and surgery is as essential to the dentist as to any other specialist. Anyone reading the preface might, therefore, expect, as did a reviewer in one of the medical journals, to find pathology and general principles dealt with in the book, in spite of its title. Mr. Roughton, with pleasant but unnecessary modesty, has omitted to state in the preface that he has already published a book on general pathology and surgery for dental students. That and the present work are probably the best books that the dental student can use, and he may be advised to get them instead of quarrying what he requires from Waltham or some other general surgery.

In the section on growths of the antrum more stress might perhaps have been laid on the symptoms, such as neuralgia, nasal obstruction, and loosening of the teeth, which may precede appreciable bulging of the antral walls. There is no reference to the need for oral antisepsis in the treatment of fractures of the mandible. *Stomatomykosis sarcinæ* seems unduly honoured by the five lines allotted to it, while salivary fistula is dismissed in six lines. The account of empyema of the antrum is particularly clear and good. The book is only open to criticism in matters of detail such as are mentioned above, and may be recommended as a safe guide.

W. S. H.

A Manual of Bacteriology. Muir and Ritchie. (Pentland, 12s. 6d).

For years past the medical student and the practitioner, who for the most part have no inclination for adventure among the shifting quicksands of bacterial literature, and little leisure for practical study of the subject, have

been enquiring for a brief and well-digested summary of the science. The volume before us seems to meet this want admirably. It is concise without being unintelligible, and broad without being inaccurate. The authors have considered only those bacteria which are associated with disease in the human subject, and "have made it a chief endeavour to render the work of practical utility for beginners." The first three chapters are devoted to general morphology, methods of cultivation and examination, and of the inoculation of animals. A short chapter on fungi follows. The fifth chapter discusses the relations of bacteria to disease, and the sixth is devoted to suppuration and allied conditions. Succeeding chapters deal *seriatim* with the various pathogenic organisms, and the concluding one is an excellent discussion on the subject of immunity. Four long appendices deal with small-pox and vaccination, with hydrophobia, with malarial fever and with dysentery. In the section on malaria occurs the only obvious slip we have been able to find. It is there stated on p. 481 that the quartan parasite passes through its cycle of development in twelve hours. The number should, of course, be multiplied by six. There are over a hundred illustrations, chiefly taken from micro-photographs. The statements made and the conclusions arrived at seem to be trustworthy and up-to-date, although, of course, the theories of such a new science are to a large extent provisional. The book is written in an interesting and readable style, and may be cordially recommended.

W. S. H.

List of Books recently added to the Hospital Library.

Publishers' Presentations.

E. Arnold—
- Paget's Wasted Records of Disease.
- Weekes-Shaw and Radford's Nursing.

Claudius Ash & Sons—
- Colyer's Extraction of Teeth.
- Lennox's Dental methods and Appliances.
- Hewitt's Nitrous Oxide and Oxygen.
- Underwood's Anæsthetics.

Bailliere, Tindall and Cox—
- McNaughton Jones' Diseases of Women.
- Pearman and Moore's Analysis of Food and Drugs.

Cassell & Co.—
- Year-Book of Treatment for 1898.
- Hutchison and Rainey's Clinical Methods.

Deacon & Co.—
- Voice, Speech and Gesture: The Elocutionary Art.

H. K. Lewis—
- Ringer & Sainsbury's Therapeutics.
- Lewer's Diseases of Women.
- Parkes' Hygiene.
- Beevors' Nervous Diseases.
- Duhrssen's Obstetrics.

Longmans & Co.—
- Jackson Clarke's Surgical Pathology.

Macmillan & Co.—
- Lauder Brunton's The Action of Medicine.

Medical Publishing Company—
- Arbuthnot Lane's Clinical Lectures.
- Bradford's Lectures on Urine.

Y. J. Pentland—
- Waring's Operative Surgery.
- Webster's Diseases of Women.
- Muir and Ritchie's Bacteriology.

G. P. Putman's Sons—
- Ambrose Paré and His Times.

Redman Publishing Company—
- D'Arcy Power's Intussusception.
- James' Treatment of Rheumatism.
- Sutton and Giles' Diseases of Women.

Segg & Co.—
- Roughton's Oral Surgery.

Spottiswoode & Co.—
- Earl's Sickroom Cookery.

Swan Sonnenschein & Co.—
- Wade's Organic Chemistry.
- Newsholme's Diphtheria.

T. Fisher Unwin—
- Paget's (Stephen) John Hunter—Masters of Medicine Series.
- D'Arcy Power's William Harvey do.
- Gordan's Sir S. J. Y. Simpson do.

By the Authors—
- Acland's Biography of Sir William Gull.
- Cuff's Lecture's on Medicine to Nurses.
- Galabin's Midwifery, 4th edition.
- Hawthorn's Forensic Medicine.

Sport.

Cricket.

GUY'S v. CRYSTAL PALACE.

A record must have been established in this match, in as much as four innings were completed in six hours play.

The Palace began batting to the bowling of Clarke and Wiltshire, and after scoring 11 for the first wicket, the telegraph showed 7 for 23. J. H. Todd then came to their rescue, and the innings closed for 67.

After lunch Guy's occupied the wicket for just under an hour, and the Palace then tried their luck, but with very little better result.

With two hours left for play, and only 80 runs to secure a victory, we began our second innings. This, however, proved too much for us, and we had to put up with defeat by 31 runs. Clarke was again in excellent bowling form, and secured eleven wickets for 39 runs. Humphry was in good form behind the sticks. Scores:—

Crystal Palace.			
E. Guy Turner, b Wiltshire	6	c Humphry b Clarke	2
E. H. Lulham, run out	3	run out	3
G. Marks, b Clarke	6	b Wiltshire	4
Capt. Seaton Browne, c Hicks, b Clarke	0	not out	6
F. C. Barchard, c Humphry, b Wiltshire	0	c Hicks, b Clarke	0
Dr. W. F. Umney, c Durbridge, b Clarke	1	lbw b Wiltshire	7
F. M. Mallam, c Wetherell, b Clarke	0	b Clarke	0
A. A. Knight, c Humphry, b Clarke	7	c Hicks, b Clarke	0
J. H. Todd, c Wiltshire, b Wetherell	31	b Clarke	3
Rev. K. Clarke, c Humphry, b Clarke	0	b Wiltshire	4
J. C. Umney, not out	4	c Hicks, b Wiltshire	0
Extras	9	Extras	8
Total	67	Total	37

Guy's.			
F. C. Wetherell, c & b Umney	0	b Knight	8
A. E. Clarke, c Umney, b Knight	1	c Brown, b Umney	7
K. V. Trubshaw, c Mallam, b Umney	0	b Umney	3
L. Humphry, b Knight	4	c Todd, b Umney	12
H. P. Wiltshire, c Todd, b Knight	0	b Umney	8
H. Durbridge, c Mallam, b Umney	4	lbw b Knight	0
T. E. Holmes, run out	1	c Marks, b Turner	0
A. E. Cawston, c & b Umney	4	not out	2
J. T. Hicks, c Mallam, b Umney	0	st Marks, b Umney	0
S. T. Willan, not out	7	c Lulham, b Umney	6
R. Willan, run out	1	lbw b Umney	0
Extras	1	Extras	3
Total	23	Total	49

GUY'S v. ST. MARK'S COLLEGE.

This match was played at Honor Oak Park on Saturday, May 14th, and resulted in a victory for Guy's by 49 runs.

Having won the toss, we began batting on a soft wicket, and by lunch time were all out for 105, of which Humphry was responsible for a well-hit 29.

On resuming after lunch Clarke and Wiltshire were in good form with the ball, and bowled unchanged throughout our opponents' innings, the former securing six wickets for 29, and the latter four for 17.

In Guy's second innings Trubshaw played excellent cricket for his runs, while Cawston hit well for his, and was unfortunate in not securing the 50. Scores:—

Guy's.			
F. C. Wetherell, b Hughes	22	c & b Harbourne	10
A. E. Clarke, b Hughes	13	not out	15
K. V. Trubshaw, b Bool	12	b Hughes	86
H. Durbridge, b Hughes	1	run out	22
T. M. Brydone, b Hughes	0		
L. Humphry, not out	29	c Harbourne, b Chubb	3
H. P. Wiltshire, b Hughes	2	b Chubb	17
R. C. Mullins, run out	3	b Elliot	10
T. E. Holmes, b Hughes	5	c b Chubb	0
A. E. Cawston, b Hughes	4	not out	47
C. Cowper, c Jarvis, b Elliott	0	c & b Chubb	1
Extras	11	Extras	4
Total	105	Total	215

St. Mark's College.	
A. O. Brown, b Clarke	4
F. A. Potter, b Wiltshire	2
T. J. Elliot, b Clarke	3
F. C. Rice, not out	19
C. H. Hughes, b Clarke	6
C. H. C. Chubb, b Wiltshire	2
E. N. Harbourne, c Humphry, b Wiltshire	2
C. O. Bool, c & b Wiltshire	0
W. Roebuck, b Clarke	3
H. C. Scotney, b Clarke	2
B. E. Jarvis, c Humphry, b Clarke	0
Extras	10
Total	56

Guy's Hospital Swimming Club.

POLO MATCHES.

First Team.

Date.		Opponents.	Baths.
May	10.	Practice Game	St. Saviour's.
"	13.	Goldsmiths' Institute	New Cross.
"	17.	City of Westminster	Westminster.
"	24.	Cambridge University	Cambridge.
"	27.	Ealing S.C.	Ealing.
June	2.	Oxford University	Oxford.
"	3.	Goldsmiths' Institute	New Cross.
"	7.	Grafton S.C.	Forest Hill.
"	16.	Otter S.C.	St. Saviour's.
"	18.	Oxford University	St. Saviour's.
"	22.	Ealing S.C.	St. Saviour's.
"	27.	Cambridge University	St. Saviour's.
July	5.	Otter S.C.	St. George's.
"	7.	Grafton S.C.	St. Saviour's.
"	12.	City of Westminster	St. Saviour's.
"	22.	Goldsmiths' Institute	St. Saviour's.

Second Team.

May	17.	City of Westminster	Westminster.
June	7.	Grafton S.C.	Forest Hill.
July	7.	Grafton S.C.	St. Saviour's.
"	12.	City of Westminster	St. Saviour's.

Guy's Hospital Lawn Tennis Club.

GUY'S v. HORNSEY.

Played at Honor Oak Park on Saturday, May 14th, and resulted in a defeat for the Hospital by 3 matches to 6, or 116 games to 117. The latter result shows that the game was a well-contested one, and one that can easily be improved upon with a little more practice.

Score:—P. S. Mandy and H. K. Lacey lost to J. S. Guthre and C. S. Robins, 6–3, 3–6, 4–6; beat J. Nicholson and T. W. Sloper, 6–1, 6–3; lost to E. Amson and A. G. Eldridge 5–7, 6–2, 4–6. M. A. Alabone and F. G. Cross lost to E. Amson and A. G. Eldridge, 2–6, 3–6; lost to J. S. Guthre and C. S. Robins, 6–2, 2–6, 3–6; lost to J. Nicholson and T. W. Sloper, 5–7, 5–7. A. C. Ransford and M. C. Wetherell beat J. Nicholson and T. W. Sloper, 6–2, 18–16; lost to E. Amson and A. G. Eldridge, 5–7, 5–7; beat J. S. Guthre and C. S. Robins, 4–6, 6–4, 6–3.

At a meeting of the United Hospitals' Lawn Tennis Club held in the College on May 16th, G. Pearson (St. George's) was elected secretary for the ensuing season, *vice* E. W. S. Rowlands, resigned. The date for the Inter-hospital Cup meeting was fixed for June 20, 21 and 22.

The Hospital "Blue."

A "Blues" Committee has been held, and the following awards have been made:—

RUGBY FOOTBALL.—F. W. Sime, C. T. Hilton, M. C. Wetherell, R. C. Mullins, T. P. Thomas, F. R. Featherstone, H. A. Cutler, P. T. Manson.

ASSOCIATION FOOTBALL.—H. P. Wiltshire, A. R. Thomas.

SWIMMING CLUB (Half-Blues).—C. B. Sells, G. Evans, G. R. S. Ash, H. N. Grose.

RETROSPECTIVE BLUES.—W. G. Rogers (Rugby Football Club); W. C. Blaker (Rugby Football and Cricket).

Guy's Hospital Rifle Association.

GUY'S v. ST. MARY'S.

This match was shot at Runemede on May 18th, 1898. Score:—

GUY'S.		ST. MARY'S.	
Stanley Hodgson	69	H. C. Jones	66
A. Pearson (capt).	89	W. A. Trumper	45
H. Stanley Turner.....	55	A. de Morgan	72
W. B. Secretan	66	J. Pooley	81
—. Keates	31	P. B. Spurgin	53
P. L. Hicks.....	54	H. C. Taylor	46
Aggregate...	364	Aggregate	363

There was a gale of two o'clock wind blowing throughout this match, which greatly interfered with accurate shooting. As is shown above, Guy's won by one point. On Saturday, we shoot the R.I.E.C. at Cooper's Hill.

Association Football.

AT the annual general meeting of the Football Club, held on Thursday, May 12th, the following officers were elected for the coming season:—Captain: R. W. B. Hall. Hon. Sec.: P. S. Mandy. Committee: L. Humphry, A. R. Thomas, W. M. Robson, J. McAlpine, H. P. Wiltshire.

Appointments.

CIVIL.

HOWARD, J. A., M.D. Lond., M.R.C.S. Eng., has been appointed Medical Officer for the Seventh District of the St. Saviour's Union.

INGLE, ARNOLD C., M.D., B.C. Cantab., has been re-appointed Medical Officer for the Third District of the Cambridge Union.

NAVAL AND MILITARY.

SURGEON J. D. HUGHES, R.N., has been appointed to the *Tartar*, and SURGEON A. E. Kelsey to the *Collingwood*.

SURGEON-CAPTAIN W. G. BEYTS, A.M.S., has been appointed Medical Officer to Sir William Lockhart when he assumes command of the forces in India.

Acknowledgments.

We beg to acknowledge the receipt of the following:—Clinical Journal, Pharmaceutical Journal, The Hospital, Hospital Nursing Mirror, Middlesex Hospital Journal, Owens College Union Magazine, Manchester Infirmary Students' Gazette, Treatment, The Medical Temperance Review, Journal of Balneology and Climatology, The Therapist, "How to Select a Life Office," by G. M. Dent, Esq., and L'Organo-Terapia nelli Nefriti della Infanzia, by Professor Luigi Concetti. Rome, 1898.

Births.

BOLUS.—On April 28th, at Beckenham, the wife of H. B. Bolus, M.B. Camb., of a daughter.

COLEMAN.—On May 15th, at Sutton Bridge, Lincolnshire, the wife of J. G. B. Coleman, L.R.C.P. Lond. M.R.C.S., of a daughter.

ROBERTS.—On May 6th, at the Beeches, Lowestoft, the wife of Reginald John Roberts, M.A., M.B., B.C. of a son, stillborn.

RODMAN.—On May 5th, at Heathcote, East Sheen, S.W., the wife of George Hook Rodman, M.D., of a son.

Marriages.

LOVEDAY—WIX.—At the Abbey, St. Albans, William Dunmore Loveday, L.R.C.P. Lond., M.R.C.S., son of William Loveday, of the Poplars, Irithlingborough, North Hants, to Lilian Emily, youngest daughter of the late Samuel Wix, of Broadwater Down, Tunbridge Wells, Kent.

SHARP—RAMSBOTHAM.—At St. George's Church, Leeds, on May 11th, Arthur John Sharp, M.D., B.S. Lond., F.R.C.S. Eng., of 26, Bagdale, Whitby, to Mary, eldest daughter of S. H. Ramsbotham, M.D. Edin., of 16, Park Place, Leeds.

ED.—H. L. E.

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Calendar of Coming Events.

June.

Sat. 4.—Mr. Howse's take-in; Drs. H. B. Dismorr and C. A. Lower; Cl., E. Evans.
G.H.C.C., I., Reigate Priory, home.
Hos.-Scho., South Lon. Tab., Nunhead.
G.H.L.T.C., Kent L.T. Club, home.

Mon. 6.—9 a.m., First and Second Year's Students' Exam. in Conservation Room for Prizes.
Exams. for Treasurer's Gold Medal begins.

Tues. 7.—Last day for sending in Fees and Certificates for First and Second M.B. Camb. Exams.
12 noon, Mr. Rowell's Demonstration on Anæsthetics.

Wed. 8.—Mr. Davies-Colley's take-in; Drs., A. A. Smith and G. Shorland; Cl., H. M. Berncastle.
July appointment list closed.
1.30 p.m., Clinical Lecture by Dr. Washbourn
G.H.C.C., I., Hornsey, away.
II., London Hospital, away.

Thur. 9.—First Year's Students' Clinical Exam. for Prizes at 2 p.m.
Application to Medical Office for Schedules for the Second Conjoint Exam. to be made not later than this date.
G.H.L.T.C., Hornsey (5 p.m.), away.
G.H.C.U., Address by Saltan Eccles, Esq.

Fri. 10.—1.30 p.m., Clinical Lecture by Mr. Jacobson.

Sat. 11.—G.H.C.C., I., Brentwood, away.
II., Croydon, away.
Hos.-Scho.C.C., St. Mary's, home.
9 a.m., First and Second Year's Students' Laboratory Exam. for Prizes.

Mon. 13.—Cambridge First and Second M.B. Exams. begins.

Tues. 14.—12 noon, Mr. Rowell's Demonstration on Anæsthetics.

Wed. 15.—Mr. Lucas's take-in; Drs., L. Wilkin and F. O. Stœhr; Cl., E. G. Goddard.
1.30 p.m., Clinical Lecture by Dr. Washbourn
G.H.L.T.C., Farnley (5 p.m.), home.

Thur. 16.—G.H.C.U., Missionary Meeting.

Fri. 17.—Special Exam for Operative Prize.
1.30 p.m., Clinical Lecture by Mr. Lane.

Sat. 18.—G.H.C.C., I.,
II., Granville (Lee), home.
Hos.-Scho.C.C., All Saints, away.
G.H.L.T.C., Connaught (3.30 p.m.), away.

Guy's Hospital Gazette,

JUNE 4, 1898.

Gastric Obstruction.

CLINICAL LECTURE BY MR. SYMONDS.

GENTLEMEN,—I wish to call your attention to some interesting cases of "Gastric Obstruction." I use the term "obstruction" intentionally and wish you to look on it as analagous to the obstruction of the large and small intestines with which you are all familiar. I think I may fairly illustrate the recent surgery of the stomach by an account of some of my own cases. You all know, of course, that the only object of surgery, in these cases of obstruction of the bowels, is to establish an opening above the obstruction, either by bringing the bowel to the abdominal parietes, as in an inguinal colotomy, or by the more modern and more perfect method of uniting the bowel above with that below the obstruction; thus, in cancer of the cæcum the lower end of the jejunum is joined to the transverse colon, and the results are most satisfactory. Or again, in cancer of the splenic flexure, the transverse to the descending colon, in both cases, relieving the circulation through the intestines. In the stomach it is only possible to employ one of these two methods; it is no use bringing the stomach to open on the abdominal wall, for naturally the amount of the food absorbed would be too little; the second method only can be employed, namely, of uniting the stomach on the œsophageal side of the obstruction to the intestine on the other side of the obstruction, or by removing altogether the cause of the obstruction. I will put on the board a rough outline of the stomach. As you know, the obstruction may be at the pylorus (as at A in the fig. 1). But the stomach is a good-sized organ and you may get obstruction at some other part. Thus, to make a list of forms of obstruction of the stomach, there is—*first*, that occurring at the pylorus; *second*, obstruction in the body of the

stomach; *third*, obstruction of the entire stomach; and *fourth*, obstruction due to dilatation. I will discuss this last condition presently. It is an open question as to whether the dilatation is primary or secondary; the condition has been called "atonic" obstruction, and it has been well compared to that condition of atony of the bladder, in which we get retention of urine, without any obstruction existing either at the neck of the bladder or in the urethra. We will next set down the causes of obstruction in the cases I am going to mention.

First comes cancer, the majority of cases of which occur at the pylorus. One case, however, and a marked case of obstruction, occurred at the middle of the stomach (B in fig. 1.)

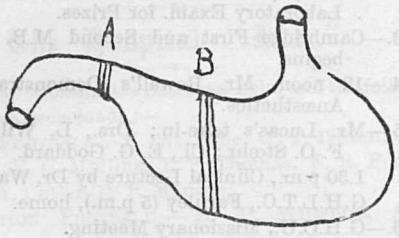


Fig. 1.

Second. Adhesions and scars, also usually around the pylorus.

Third. Obstruction by simple dilatation.

Fourth. Fibrous thickening of the pylorus, no case of which occurs in my list.

Fifth. Another cause, giving rise to a curious series of symptoms, which may simulate hysteria, is the dragging of the stomach by a diseased great omentum; this is not usually put down as an obstruction, but I think it may fairly be added as a fifth cause. There is a case recorded of chronic gastric symptoms lasting for years, which was finally relieved by abdominal section and setting free the stomach from a tuberculous omentum.

Next, we must consider how far we can get in recognising one form from the other; I am not going to say much about that to-day; it is a subject of great importance, for clinically it is very difficult to distinguish between simple dilatation of the stomach and pyloric obstruction from cancer.

Of course, the recognition of a tumour in the region of the pylorus, of moderate size, gives an inference strongly in favour of carcinoma, yet one may feel a tumour in that situation when there is no carcinoma of the pylorus, and again though no tumour is found, a cancer may nevertheless exist. Thus, this specimen of carcinoma pylori was not recognised clinically, so that you see the tumour may be absent in cancer and present in fibrous thickening.

One point in the diagnosis is the chronicity of the case; the longer it has existed the more likely it is to be simple in nature. To strike a rough average, the ordinary duration of a cancer of the pylorus is about twelve months, the duration, that is, before they come to see us; on the contrary, in chronic cases of simple dilatation, a very long period may elapse before we are called in; but this depends a little, I think, on the patient. In the case of one man whom I was called in to see, the symptoms dated back some two or three years; in another patient, the onset of symptoms had taken place only seven months before, and he was not nearly so bad as the first case.

Well then, the next point for consideration is the difficulty, even when the abdomen is opened, of distinguishing sometimes between cancer and adhesions; the cause of the adhesions in most cases is old ulceration in the pylorus, partly in the stomach, and partly in the duodenum; this perforates externally and thus are formed numerous adhesions and a great deal of fibrous thickening. In some cases, after extensive old ulceration, even with one hand in the abdomen and on the stomach and with the stomach in view, it is extremely difficult to say which it is. Thus, in one case I found on opening the abdomen a mass of growth two inches thick, and said at once that it was a carcinoma, but there was no cancer there; the patient died of a hæmorrhage on the fifth day, and at the post-mortem the whole of the mass was found to be due to fibroid thickening. The operation wound was all right, the hæmorrhage having taken place independently from a vessel in the ulcer of the stomach wall. I will now mention one or two cases.

The first case was a man of 44 years of age, sent to me by Dr. Larkin. He had had symptoms of gastric disease for a year and had emaciated rapidly. Atony of the stomach was diagnosed, and when I saw him for the first time he had just returned from Egypt where he had been advised to take a tour. He was emaciated to the last degree, and as his face had been bronzed by the Egyptian sun, he looked more like a mummy than a man. I believe that not a drop of fluid had passed his pylorus for a long time. I suggested that he should be washed out; this was done and he was much relieved. I could feel no tumour, but there was obvious dilatation. I could only suggest short circuiting the alimentary canal; in other words, attaching the small intestine to

the stomach above the obstruction. Let me again say, in passing, that I wish to put these cases of gastric obstruction on the same foundation as obstruction of the small intestine from stricture or cancer. To continue the case: The man submitted readily to the operation; I found it was impossible to extirpate the disease, the glands were cancerous, and there were malignant deposits in the peritoneum. I performed a gastro-jejunostomy, and so emaciated was the man that I decided to feed him immediately. He was given a pint of milk in the first twelve hours; he was never sick, and he got better so rapidly that at the end of two months he was two stone heavier. For six months he improved, and indeed considered himself as quite well; then the inevitable happened—the extension of the disease to surrounding parts and to the prostate; he died, and in his will he left me the specimen you see here. This patient, you see, enjoyed six months' comfortable life after the operation. Now this is a quick operation with very small risks, but it is more desirable to excise the cancer. The safety and worth of the latter operation depend on the period at which we obtain the case. If the case is sent to us early we may perform excision and obtain valuable results, but at present many are disinclined to pass these cases on to the surgeon. Just lately, I have had some experience with two private cases which have particularly shown me how very disinclined some are to advise operations in such cases. One medical man on whom I operated, was so frightened at the idea of an abdominal section, that as he went under chloroform, he fully expected never to see me again. He is now eating three good meals a day.

If we excise those parts of the stomach and duodenum which constitute the pylorus (which Professor Billroth first did some twenty years ago, followed by recovery), the question arises: Is it better to unite the cut ends of the stomach and duodenum, or to perform a gastro-enterostomy?

Here is a special case in which I excised the pylorus: it was a great success, and I have had a most grateful letter from the patient: he has gained two stone in two months: more, I think, than he would have if I had simply performed a gastro-enterostomy, though I am not sure, as, if you remember, the other case put on weight just as quickly.

I will select a case to shew what may be done when obstruction is due to another cause, adhesions about the pylorus leading to narrowing. That of a man of forty-eight, with a remarkable history of attacks of abdominal pain for the last thirty years, in other words, since the age of eighteen. A diagnosis of gall-stones had been made, and he was sent to my house; he had not been there long before he had an attack; he was extremely bad,—pain about the gall-bladder, and sickness, accompanied by much gurgling and rumbling: I had to give him a large injection of morphia. I inclined to the diagnosis of gall-stones, though the typical and clinching symptom of jaundice was entirely absent.

He was sent up to Bright, and I explored his gall-bladder, and found it perfectly healthy, but noticed some adhesions around it. I closed the abdomen, and the wound healed. Well, the patient got rapidly worse; the pain increased; he vomited everything he took, and became emaciated.

A diagnosis of pyloric obstruction was then made by a very able man in Peterborough, I believe on the grounds that he vomited some Burgundy which he had taken some two days before. I opened his abdomen again and found that the pylorus was surrounded by very tight adhesions. I introduced my finger into the stomach and succeeded in driving it through the pylorus—Loreta's operation—but in so doing I split it and had to spend half an hour sewing it up; after this I performed a gastro-jejunostomy. He could soon eat anything, beef-steaks for instance; he was a wonderful man for five weeks, then he became bad again, and I had to repeat the operation. Again the opening closed and again I operated; in this way I performed seven abdominal sections on this one man, with the result of complete recovery. I believe the repeated contractions were due to the extreme health of this man; in cancer we do not get such contraction; the closure was, I think, primarily due to his great vigour.

By the way, when I explored his abdomen, I found a curious matting of the small intestine, thus (fig. 2), so that there must have been great

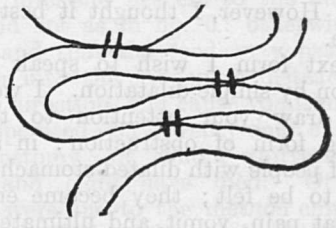


FIG. 2.

obstruction from this cause alone. I unravelled all the adhesions and straightened out the small intestine and advised the patient to keep his bowels open with purgatives; the next time he saw me he said he had exhausted all the store of senna and castor oil in Watford, and what was he to do next? I short circuited all the coils, as you can see in fig. 2.

The next case I will consider is one illustrating obstruction in the centre of the stomach, and is that of a retired baker. When I first saw him he was emaciated to a degree, indeed he lived almost entirely on milk and whisky, and was in a very bad state, a large mass could be felt in the middle of the stomach. When I operated I found that the stomach was not dilated, and I united the cardiac end to the small intestine by a Murphy's button. I have not seen him since, but I have heard from Dr. Cock, of Peckham, who is a very good critic, that he thinks the result thoroughly justified the operation.

Another form is obstruction of the whole stomach. Two weeks ago I went to see a man with symptoms of obstruction; there was no stomach to be felt, but there was a big lump in the situation of the pylorus. As I sat by this man's bed, and as he told me his symptoms, it seemed to me that everything pointed to obstruction at the cardiac end of the œsophagus; thus he could only take a very little at a time, milk, for instance, in little sips. While I was there he tried to take some milk, and with infinite trouble managed to retain about as much as would fill a tea-cup, and both his wife and himself considered this a great success. With this lump and the history of vomiting, I felt justified in operating, and when I introduced my hand into the abdomen I found that the lump we had felt came from a mass of glands around the pylorus. The stomach was one continuous smooth infiltrated mass of cancer, what is known as the "leather bottle" stomach. There was only one thing possible to be done, and that was to unite the jejunum to the abdominal wall and feed him through the opening. However, I thought it best to leave him alone.

The next form I wish to speak about is obstruction by simple dilatation. I would particularly draw your attention to this very interesting form of obstruction: in a certain number of people with dilated stomachs there is no lump to be felt; they become emaciated, suffer great pain, vomit, and ultimately die. I have had two such cases, both men of between forty and forty-five years of age: both, I think, aged forty-four. One of the cases was a peculiarly distressing one: it was that of a medical man who was doing a good practice, but who was so exhausted by his complaint that he had to be helped into his dog-cart when he started his rounds, and yet, when he arrived at a patient's house, had to spring from his trap to disguise his illness; again, if he ate a dinner at a friend's house, he had to come home immediately afterwards and wash out his stomach; you can understand that he was in a state of extreme misery. I decided to do a gastro-jejunostomy, and after obtaining the tardy consent of an eminent physician, operated. Since then, he has made flesh, and disappointed a rather obnoxious opponent in the town, who had said that it was only a matter of days as to his rival's life. In this case there was no cancer, simply dilatation, due probably to some adhesions obstructing the pylorus. I did not disturb the parts as I wished to incur as little risk as possible.

Then there was the case of a man in H.M. Navy, who was sent to me with symptoms of dilatation: a big stomach and sickness. He had been supporting life on a limited diet, was very emaciated, and in a bad way. It was evidently necessary to do something for him; other consultants thought that it was a case of simple dilatation, and advised him not to have anything done; as I have said before, we have much to learn on this matter: I think that a case of dilatation in a patient of forty to fifty years of age will probably not be relieved except by operation. There is a way of exploring the pylorus by invaginating the stomach wall in front of the finger, and so pushing it through without incising the stomach wall, but I doubt its value. In this case I opened the stomach near the pylorus and my little finger went through readily, my forefinger also could be got through, and lastly I cut through with scissors and performed a pylorraphy: I preferred to enlarge the pylorus rather than to join the stomach to the intestine. The method of performing pylorraphy is difficult to explain, so I have drawn it on the board (figs. 3 and 4). You will see that by bringing what were originally horizontal surfaces into a vertical position we enlarge the calibre of the gut. The patient was very frightened, but he soon got quite well: lately, he gave me his diet, and I really think he eats more than I do: he has gained 6 lbs. in a very short time: however, as he is an old dyspeptic, and rather a crank on the subject of diet, he hesitates to eat. I may add that six weeks after operation he has resumed his duties.

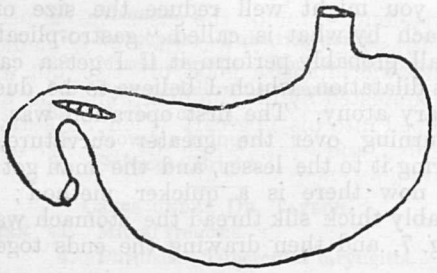


FIG. 3.

FIG. 4.

Here was an excellent case of gastric dilatation; it is a little difficult to say what was the cause of the dilatation; there was no scar or active ulcer, probably some contraction had led to dilatation. What I wish to urge is that these cases of gastric dilatation should be submitted to an abdominal exploration, when the pylorus can either be enlarged or a gastro-jejunostomy performed. We will discuss the mortality of these cases presently. There is something to be done for all these cases, but the question as to which operation it is best to select must wait until the abdomen is opened. All pyloric cancer must, if possible, be removed; if not possible, we must do a gastro-jejunostomy. In cases of cancer of the wall, only gastro-jejunostomy is possible; these are the two extremes. In cases of obstruction from adhesions or cicatrization, the best plan is to enlarge the pylorus by a pylorraphy; if impossible, owing to the density of the adhesions, we must fall back on a gastro-jejunostomy. I particularly exclude Loreta's operation of forcible divulsion of the pylorus, that is, the operator stretching the opening with his finger. The operation may be successful, and it may be fatal; when I did it, I tore through the pylorus and had to spend half-an-hour sewing it up again. A Newcastle surgeon, Mr. Morrison, writing in the *Lancet*, states that he has performed the operation on eleven cases without a failure, though he thinks that the dilatation produced by pylorraphy is as good. Now let us summarize the results in the cases upon which these remarks are founded. There were twelve cases of pyloric cancer; of these nine recovered and three died. Of those that recovered, eight were relieved by a gastro-jejunostomy, and one by a resection of the pylorous. Three cases died, one of them last week; in this case, I resected the pylorus, but a leak took place at the junction, between the stomach and intestine, owing to some defect in the suturing. I might say that this is the only instance that has occurred out of seventeen or eighteen cases of gastro-jejunostomy. The death of the other two was in each case due to shock; they were both desperately bad, so bad that I declined to operate on one, but was pressed to do so by the friends. Next, as to cancer of the wall: I have had three cases; two of them were relieved, one was very ill and I operated at the last moment; it was a case of most extensive disease, and the patient died. Up to the present, we have eleven cases relieved and four deaths, only one of which could be imputed to the method employed.

Then as regards cases of adhesions: one died from an accidental hæmorrhage from the stomach wall, not connected with the operation: one, a case of contraction from swallowing corrosive poison, died, as Dr. Perry put it, from want of pluck. Then there are four cases of simple dilatation, of whom two are well, and are about their ordinary business: one died—a very sad case—it was due to the neglecting of a little point in the operation. In this case I did not perform pylorraphy, but a gastro-jejunostomy, and there is a specimen in the museum, shewing what I consider to be the cause of death. The patient was going on well, and was about to get up, when on sitting up in bed, he was suddenly very sick: this occurred on Friday, and he died on the following Monday. Now, I think this was due to the careless disposition of the parts: when you bring the jejunum up to the stomach you should take care that the limb of intestine nearest the pylorus should be the part of the intestine nearest to the anus; as in fig. 5, and not as in fig. 6; otherwise, you can understand that the food may pass from the stomach into the duodenum instead of in the opposite direction, and cause vomiting.

I have operated on twenty-one cases by gastro-jejunostomy, of whom thirteen have recovered, and eight have died. Of those deaths, two were due to the method employed, viz., the case of leak, and that of misplacement of the bowel.

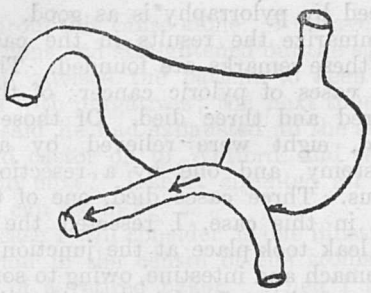


FIG. 5.

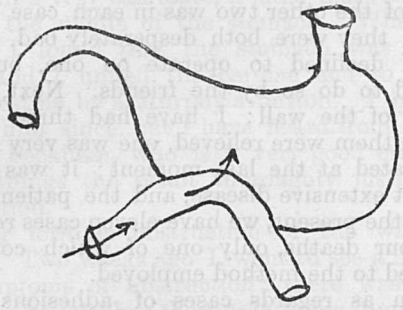


FIG. 6.

To just go over the causes of death—Three were due to shock, they were all desperately bad cases. One was due to a leak, one was due to hæmorrage which was unexpected, one died of exhaustion, the case under Dr. Perry, and lastly, one was lost through the kinking of the intestine.

Now if you take the case of the man Armstrong as equal to three gastro-jejunostomies, that will make twenty-four operations, of whom sixteen, or two-thirds, recovered, and eight died. Again, if you take away from these the three moribund cases, the one due to hæmorrhage, and the one who died of "want of pluck," we have only two cases to account for, the leak and the misplaced intestine. There are thus only two avoidable deaths, and I think we may call the operation very fairly successful.

I have said enough in a general way to emphasize the importance of operating early. Morrison, lately, in an article in the *Lancet*, has put forward some striking cases. He insists that what we want is a safe method of operating on these cases, and he also insists on the necessity of getting them early.

There is one other method which might be employed in a case of enormous dilatation, where it is doubtful if pylorraphy would be advisable or sufficient: it occurred to some one that you might well reduce the size of the stomach by what is called "gastro-plication." I shall probably perform it if I get a case of great dilatation, which I believe to be due to a primary atony. The first operation was done by turning over the greater curvature, and suturing it to the lesser, and the man got well. But now there is a quicker method; with tolerably thick silk thread the stomach wall as in fig. 7, and then drawing the ends together,

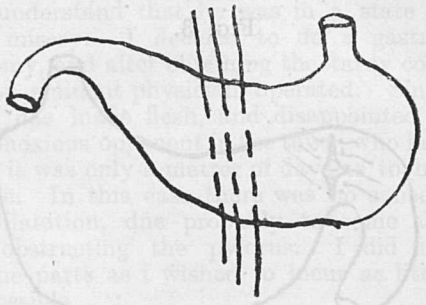


FIG. 7.

we get contraction all along the wall. The operation is quite successful, and there is very little risk indeed.

To sum up: for simple dilatation there are two ways open, a pylorraphy or a gastro-jejunostomy, associated, in suitable cases, with gastro-plication; for simple obstruction from adhesions or cicatrization, the same two operations are possible, but I incline to agree with Morrison that they should, if possible, be treated by the former method. Malignant disease I have already dealt with.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

CASES UNDER DR. PYE-SMITH.

PHILIP
24. Morbus cordis.
26. Fibroid lung. Phthisis.
27. Phthisis.
28. Lobar pneumonia. Hydrocephalus.
29. Morbus cordis.
33. Carcinoma ventriculi.
34. Pleuritic effusion.
35. Pericarditis.
36. Scrofulodermia.
37. Hæmaturia.
38. Gonorrhœal synovitis.
40. Gumma of liver.

MARY 26. Anæmia.
27. Dyspepsia. Pulsating aorta.
28. Mitral stenosis. Double pleurisy.
32. Pyrexia following measles.
33. Morbus cordis.
35. Movable kidney.
36. Subacute Bright.

CASES UNDER DR. TAYLOR.

STEPHEN 1. Mitral stenosis.
4. Phthisis. Tubercular laryngitis.
5. Enterica.
6. Chorea.
7. Gout.
9. Cirrhosis of liver. Nephritis.
10. Sciatica.
16. Acute nephritis.
19. Progressive muscular atrophy.
MARY 40. Enlarged liver. ? Cause.
44. Cardiac and renal disease. Albuminuric retinitis
46. ? Tubercular peritonitis.
47. Aortic regurgitation.
48. Phthisis.
49. Pleurisy.
Cot 57. Broncho-pneumonia.

CASES UNDER DR. GOODHART.

PHILIP 1. Phthisis. Nephritis. Jacksonian epilepsy.
2. Phthisis. Hæmoptysis. Enlarged liver and spleen. ? Lardaceous.
6. Aortic regurgitation and stenosis. Mitral regurgitation and stenosis. Tricuspid regurgitation.
13. Chronic tubal nephritis.
16. Pericarditis. Aortic and Mitral endocarditis.
19. Jaundice. Enlarged liver and spleen. ? Malarial cirrhosis.
MARY 14. Biliary colic.
15. Movable kidney (right). Colic.
16. Ulcerative endocarditis.

CASES UNDER DR. HALE WHITE.

STEPHEN 23. Aortic stenosis and mitral regurgitation.
33. Malaria.
40. ? Renal calculus.
MARY 3. Cerebral tumour.
4. Chorea.
9. Mitral stenosis and regurgitation.
10. ? Bronchiectasis.
12. Gastric ulcer.

In the Surgical Wards.

CASES UNDER MR. HOWSE.

ASTLEY COOPER 18. Dislocated ankle.
NAAMAN 5. ? Exostosis. ? Ganglion.
6. Irreducible hernia.
NAAMAN 10. Traumatic urethral stricture.
13. Hydrarthrosis of knees. ? Gonorrhœal.
15. Genua valga et flexa. Talipes. Equino-varus.
18. Syphilitic disease of femur and knee-joint.
CHARITY 10. Separation of upper epiphysis of femur.
11. Excision of hip.
14. Contraction of mouth after burn.
17. Ankylosis of hip.
Cot A. Ectopia vesicæ.

CASES UNDER MR. DAVIES-COLLEY.

CORNELIUS 12. Ruptured internal pudic artery. Operation.
LUKE 3. Tuberculous bursitis.
5. Psoas abscess.
17. Papilloma of tongue.
19. ? Tuberculous kidney.
20. Hip disease.
21. Hallux rigidus.
LYDIA 2. Hæmaturia. Operation.
7. Musculospiral paralysis.
9. Inguinal and umbilical herniæ.
17. Enlarged bursæ about knee.
23. Carcinoma pylori.

CASES UNDER MR. LUCAS.

ACCIDENT 2. Bruised kidney. Hæmaturia.
14. Fractured pelvis. Ruptured urethra.
16. Acute synovitis, right knee.
26. Hæmatomyelia.
29. Fractured sternum. Scalp wound.
LYDIA 10. Gangrene. ? Diabetes; operation.
11. Compound fractured tibia and fibula; wired.
JOB 4. Talipes equinus.
6. Anthrax.
18. Hydrocele of cord.
20. Hæmaturia.
24. ? Abscess in the thigh.
CHARITY 23. ? Tuberculous knee.

CASES UNDER MR. GOLDING-BIRD.

LAZARUS 2. Lymphangioma circumscriptum.
7. Tuberculous shoulder.
9, 16. Hip disease.
12, 13, 14. Stricture.
MARTHA 1. ? Fractured base. Fractured radius.
3, 4. Tuberculous knee.
8. Tumour in abdominal wall.
9. Rodent ulcer.
12. Needle in chest wall.
16. Membranous colitis. Colotomy.
17. Pustular growth on cheek.
Cot A. Epiphysitis.

CASES UNDER MR. JACOBSON.

NAAMAN 20. Appendicitis.
DORCAS 1. Papilloma of tongue. Operation.

Case under Mr. Symonds.

Martha 12. Sarcoma of mandible.

Cases under Mr. Lane.

Job 12. Appendicitis.
14. Abscess in tibia.

Dorcas 4. Floating kidney. Operation.

Case under Mr. Dunn.

Martha 10. Recurrent carcinoma of breast.

"Clinical."

3. Nitric acid poisoning.
4. Clearing up pneumonia. Pleurisy. Acute rheumatism. Absence of knee jerks.
5. Appendicitis. Abscess opening into intestine.
8. Chronic bronchitis.
11. Subacute nephritis. Ascitis.
12. Diabetes mellitus.
13. Aortic regurgitation. Mitral stenosis and regurgitation. Pleurisy at base.
14. Scorbutus.
15. Gumma of liver. Perihepatitis. ? Cirrhosis.
16. Cerebro-spinal meningitis.
17. Meningitis (adult).
19. Empyema.
20. Mitral stenosis and regurgitation. Tricuspid regurgitation.
23. Subacute nephritis.
24. Nephritis. Pregnancy 7½ months. Great œdema of labia.
25. Suppurating kidney. Operation.
26. Leucocythæmia. Infarcts into spleen.
27. Convulsions. ? Tuberculous meningitis. Tuberculous mass in abdomen.
29. Mitral stenosis and regurgitation.
31. Infective endocarditis.
32. Severe anæmia (girl æt. 9). ? Cause.
33. Broncho-pneumonia. ? Laryngeal obstruction.

Case under Mr. Howse.

Cellulitis of Leg—Acute Septicæmia—Death.

C. R., male, æt. 55, was admitted on Saturday, March 23rd, for acute swelling and inflammation of the left leg. On the previous Tuesday he got a small wound on the back of the calf from a case falling on his leg. He took no notice of this and continued his work till Friday afternoon, when his leg became swollen and painful, and he came up to the Front Surgery. At this time the left leg, from the knee downwards, was considerably swollen and discoloured in places, and there were several patches of hæmorrhage beneath the skin. Patient's temperature was normal, and he was apparently quite well and in no pain. The wound on the back of the head was rather punched out, about the size of a sixpenny piece, and there was a small slough in the base of it. He was treated for the inflamed condition and told to come up to Out-patients' the next day. On the following day, Saturday, he *walked* up to Out-patients' and saw Mr. Fripp, and as the leg was markedly worse and he was becoming collapsed, he was admitted into Naaman and put to bed about 6 o'clock.

On admission.—Patient was pale and obviously very ill; he complained of not being able to breathe, and this condition could not be accounted for by the physical signs of his chest. There was no cyanosis; pulse rapid, but fairly good; tongue dry and coated; sordes on teeth and gums. There was a uniform brawny swelling of the whole leg and thigh up to the groin, with much discolouration and purpuric patches in places, and there was a slight discharge of thin serum from wound on the calf; no fluctuation could be obtained anywhere in the leg. The leg was raised and hot creolin fomentations were applied, and stimulants freely administered. Patient grew rapidly worse, the dyspnœa became more marked and the pain in the leg increased. His temperature was normal on admission, and at no time did it rise above 100°, this being about 8 p.m. During the evening the dyspnœa increased, the pulse became more rapid and feeble, and patient died at 2.30 a.m. on Sunday, eight and a half hours after admission.

At the autopsy—Practically nothing was found. There was no pulmonary embolism; the kidneys were large and contained a few small cysts, and the spleen weighed 5 ounces and was softer than usual.

Two specimens were taken for bacteriological examination, and by the kindness of Dr. Eyre we have been furnished with the following notes.

Two specimens from this case were submitted for bacteriological examination, viz.:—

I. About 1 cc. of a blood stained serous fluid obtained from the œdematous subscutaneous tissue of the upper part of the left thigh.

II. A portion of the left femoral vein, about 1 cm. in length.

I. Coverslip smear preparations were made from the serous fluid. These showed, in addition to mono- and poly-nuclear leucocytes and red blood discs, numerous cocci, arranged for the most part in definite though short chains (containing not more than six or eight elements) and in pairs, although groups of staphylococci were also seen.

Tubes of (*a*) nutrient broth and (*b*) agar were inoculated from the serum and incubated at 37° C. for twenty-four hours; a tube of (*c*) sugar-formate broth was also planted and incubated at 37° C., under anærobic conditions, in Buchner's tube.

(*a.*) Microscopically, the growth in broth consisted chiefly of staphylococci, but here and there one could find long convoluted chains of cocci, containing some scores of individuals.

(*b.*) The agar cultivations showed to the naked eye three varieties of colonies: (1) a few circular-raised,

moist, opaque, golden-coloured colonies, about 3 mm. in diameter; (2) some similar colonies, but of white colour. (Further investigation proved that these were respectively the staphylococcus aureus and the S. albus). (3) Numerous minute almost transparent spherical colonies, composed microscopically of short chains of cocci and diplococcus forms. Subcultures of these last in broth gave rise to typical streptococcus cultures, consisting microscopically entirely of long convoluted chains.

(c.) The broth tube grown anærobically showed at the end of twenty-four hours a light turbidity of the medium with deposits of small flocculent masses on the sides of the tube. Microscopical examination of the growth showed it to be a pure culture of the streptococcus longus.

II. The portion of the femoral vein was thoroughly washed with sterile water, opened with sterile instruments, the mucous membrane seared with a red-hot iron, the charred portion scraped away by means of a sterile knife, and broth and agar tubes inoculated from the submucous tissue. Coverslip preparations were also made from this situation, and when stained and examined microscopically, showed numerous short chains of streptococci. No other organisms could be detected. The cultivations, after twenty-four hours' incubation at 37° C., gave rise to practically pure cultures of the streptococcus longus.

A subculture upon agar was made from the anærobic broth cultivation (c) and forwarded to Dr. Bullock for use at the immunising station of the British Institute of Preventive Medicine (at Sudbury), and to the kindness of this gentleman we are indebted for the following notes upon the initial virulence of this particular streptococcus as tested upon rabbits:—

1. A twenty-four hour old serum broth culture injected into the dorsal vein of a rabbit's ear produced a typical ear-erysipelas.

2. 1·5 cc. of a twenty-four hour serum broth culture had no effect when inoculated subcutaneously into a rabbit weighing 800 gram.

3. 2 cc. of a similar culture, injected into a rabbit of practically the same weight, caused death from streptococcic septicæmia.

From these details it will be seen that a streptococcus, identical with the streptococcus pyogenes longus of Lingelsheim, and pure cultures of which caused typical ear-erysipelas in a rabbit and also proved fatal to other rodents, was isolated both from the serous exudation into the subcutaneous tissue of the limb, and from the actual substance of the wall of the femoral vein of the same leg, in the former case contaminated with ordinary pyogenic staphylococci, in the latter practically pure.

Papers by Guy's Men.

A Simple Method for Demonstrating the Production of Gas by Bacteria. By H. E. Durham, M.B., B.C., Cantab.

Remarks on Scarlet Fever. By J. W. Washbourn, M.D., F.R.C.P. *The Clinical Journal*, 1st June.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Guy's Hospital Pharmacopœia.

DEAR MR. EDITOR,—A committee of the Staff has lately been formed for the purpose of editing the new edition of the Guy's Hospital Pharmacopœia. The committee allow me to say that they would welcome suggestions from old Guy's men, and indeed from students generally, having for their object to make the work as useful and complete as practicable. May I, therefore, appeal to you to throw open your columns to correspondence upon this subject? The forthcoming revision will, of course, be brought into conformity with the new edition of the British Pharmacopœia.—Yours sincerely,

E. C. PERRY.

June 1st, 1898.

The Increase in the Number of Fatal Accidents under Anæsthetics.

Reprinted from *The British and Colonial Druggist*, March 18, 1898.

DEAR SIR,—From a table published by Dr. Robert Bell in the *British Medical Journal*, March 12th, we learn that the mortality under anæsthetics during the three years preceding the Hyderabad chloroform commission (1889-90) were—

Year	1887.	1888.	1889.		1890.	1891.	1892
	16	11	13		19	46	41
	1893.	1894.	1895.	1896.	1897.	A grand total of	
	46	60	61	63	96	432 deaths.	

reported for England alone. These figures should serve to prove conclusively that the patient's absolute safety is not ensured *always* by estimating the action of inhaled chloroform by symptoms shown by the respiration or by the circulation, but alone by a knowledge of a definite amount of chloroform administered in a given time. Numerous cases have been reported in which sudden death had, or nearly had, occurred whilst the normal regularity of breathing was maintained throughout, showing that a patient may, under moral pressure, and even voluntarily, take a lethal overdose with normal respiration.* In Mr. Godwin's case the patient breathed well, and took the chloroform quietly without struggling, but suddenly, without warning, became extremely pallid, and excepting a few gasping breaths, respiration entirely ceased. The heart's action continued very feebly for some minutes after. In Mr. Stevenson's two cases, the chloroform was given by a skilled anæsthetist by means of a cone with Krohne's breathing indicator, than which

* "Death under Chloroform," by Surgeon-Colonel C. H. Y. Godwin, *Lancet*, August 12th, 1892; and "Chloroform Anæsthesia," by Professor W. A. Stevenson, *Lancet*, March 18th, 1893.

there is, to use Mr. Stevenson's words, no better apparatus for the purpose, and no struggling took place in either case. But as in both, a child of three years and a man, the operation was completed, the face suddenly became pale and the pulse was found to be imperceptible at the wrist and in the neck. When the danger symptoms arose in these cases the attention of those present was called to the sequence of events—that the pulse had quite ceased to be felt, whilst not only did the movements of respiration continue, but that they were effective in moving the air freely in and out. In the two last cases the breathing was restored, the heart not being so completely paralysed as in the first-named fatal case.

No one has disproved, nor can disprove, the truth of Dr. Snow's conclusion, that 12 minims of chloroform slow-progressively administered, can have no other effect in an adult than loss of sensation without loss of consciousness. Eighteen minims, loss of sensation, consciousness and motion, all that is required to any ordinary surgical operation. Twenty-four minims uniformly diffused in the blood produce thorough relaxation of the muscles, only required for the reduction of long-standing dislocations, and, further than this, Snow's fourth degree, chloroform, should never be pushed if administration of chloroform is limited to the amount capable of inducing either of these safe degrees of narcotism, no ill effect can follow its use. Therefore, I maintain that had pure chloroform been administered on Snow's method from the first, not a single fatal accident would have been caused by its over-administration, to which alone these deaths are due.

Snow was undoubtedly one of the greatest benefactors to man and animal kind the world has ever produced, of whom his country may be justly proud, by having been the first to show how to administer chloroform always with perfect safety. Unfortunately, the great value of his work was not recognised, at the cost of thousands of innocent human lives. Sir Richard Quain, who has only just passed away, not long ago suggested that a statue of him should be erected, and certainly few men have better deserved such a memorial, towards which, if the public were informed of his true worth, every man, woman and child could not fail to willingly subscribe their mite. May I suggest to the Lord Mayor of York, the city in which Snow was born, to carry out this desirable object by raising a fund to which I am anxious to be the first subscriber.—Yours truly,

JUSTICE.

Safe Chloroform Anæsthesia.—Definite Dosage.

Sir,—It may interest practical anæsthetists to know that it is easier to administer with a suitable inhaler one minim of chloroform in vapour with mathematical precision, in one or two hundred separate equal doses, than is possible to administer eighteen fluid minims of chloroform with a minim measure or drop-bottle in eighteen separate one-minim doses.

That no medicine admits of more definite dosage than anæsthetics in vapour will be demonstrated at 8, Duke Street, Manchester Square, W., to all desirous of administering, with thorough confidence, chloroform *always* with perfect safety.—Yours respectfully,

London, May 25th, 1898. C. W. KROHNE.

[We have been asked to publish the preceding letter, and do so gladly, but we should like to add that the discussion of dosage in anæsthetics, which has taken such a prominent part in medical literature of late, takes practically no account of the *time* taken in administering the dose. Twenty minims of chloroform in four minutes cannot have the same effect as twenty minims in six minutes, for example, and all said and done, the cardinal point to note is the condition of the patient as regards circulation and respiration, and while these remain satisfactory there can be no fear of an overdose, provided the anæsthetic is carefully administered.—Ed. G.H.G.]

Lawn Tennis.

Dear Sir,—Will you allow me to point out one or two omissions and mistakes in last issue of Gazette in the Calendar of Coming Events? On Saturday, May 21st, the G.H.L.T.C. had a match v. Weighton, at home; on Tuesday, May 31st, another match v. Albemarle, at 5 o'clock, both of which were omitted.

On Saturday, June 4th, the G.H.L.T.C. meets the Kent Lawn Tennis Club, at 3 o'clock, at home—not Albemarle, at 5 p.m.

Of course, these are matters of small importance, but at the same time I thought that it might be as well to mention them.—Yours, &c., HUGH K. LACY,

Hon. Sec. G.H.L.T.C.

Standing Orders for Assistant House-Surgeons.

The assistant house-surgeons, six in number, are appointed by the house committee upon the recommendation of the medical committee, and hold office for three months. Two of them are on duty in the front and back surgeries, and the others in the wards and out-patient department.

Surgery.

1. The assistant house-surgeons shall attend daily, except on Sundays, in the hospital. One of them shall be in the front surgery on Mondays, Wednesdays and Fridays, and in the back surgeries on Tuesdays, Thursdays and Saturdays. The other shall be in the front surgery on Tuesdays, Thursdays and Saturdays, and in the back surgery on Mondays, Wednesdays, and Fridays.

2. The assistant house-surgeon on duty in the front surgery shall attend from 9.30 a.m. to 6 p.m., except

during an interval for luncheon between 12.30 and 1 o'clock, during which interval the ex-house-surgeon or the ex-house-physician shall be called to any cases requiring immediate attention.

3. The assistant house-surgeon on duty in the front surgery shall, with the assistance of the surgeons' dressers, see and treat accident cases and emergency medical cases which are not severe enough to require admission to the hospital. He shall see that all other surgical and medical cases suitable for treatment as out-patients shall be directed to attend in the out-patient department. In the case of patients requiring in his opinion admission to the wards, he shall send for the house-surgeon or the house-physician for the week, and should he not arrive within ten minutes of being summoned, the assistant house-surgeon may direct the patient to be sent into the wards.

4. The assistant house-surgeon on duty in the front surgery shall see that the names of all patients treated in the surgery are entered in the registers, and in the case of accident patients, shall take care that they are provided with cards for further attendance in the back surgery.

5. The assistant house-surgeon on duty in the back surgery shall attend at 9.30 a.m., and shall see that, before twelve o'clock, the assistant surgeons' dressers dress the patients previously treated in the front surgery. He shall carefully note the regularity of attendance of the dressers, and the way in which their duties are performed, so that he may be in a position to sign the usual reports for the information of the Medical Council.

WARDS AND OUT-PATIENT DEPARTMENT.

1. Each assistant house-surgeon is attached to an assistant surgeon, whom he shall attend in his visits to the wards, operating theatre, and out-patient department. He shall also administer anæsthetics as required. In the absence of the assistant surgeon the assistant house surgeon is responsible for the cases under his charge from 9 a.m. to 5 p.m., and, if he be resident in the college, during the whole twenty-four hours.

2. The assistant house-surgeon shall, in the absence of the assistant surgeon, decide upon and be responsible for the treatment of all cases admitted under his charge.

3. Dressings and other remedies shall be applied by the dressers under the direction of the assistant house-surgeon, except in cases where such application by the dressers would, in his opinion, be inconsistent with the responsibility devolved on him by the terms of his appointment. The assistant house-surgeon shall superintend the conduct of his dressers, and shall afford them every facility and assistance for obtaining practical information.

4. The assistant house-surgeon shall act under the direction of his assistant surgeon, and shall faithfully carry out his directions with reference to the treatment of patients. In cases of doubt or difficulty, or when operative interference is necessary, he shall apply to his assistant surgeon, or to the assistant surgeon for the week, or in their absence to any other assistant surgeon, or to a house-surgeon.

5. On the admission of patients to the wards the assistant house-surgeon shall see that the headings on the bed-letters are filled in without delay. Instructions with reference to diet and treatment shall be written upon the bed-letter.

6. The assistant house-surgeons shall visit the wards twice daily. The morning round shall begin not later than 10 a.m., and the evening visit shall usually terminate not later than 11 p.m. In the morning the assistant house-surgeons shall see all cases under their charge, and in the evening such patients as have been admitted during the day, as well as all urgent cases.

7. The assistant house-surgeons shall not, except in cases of emergency, dress patients in the wards during visiting hours nor during prayers or meal times.

8. No patient shall be discharged from the hospital except by direction of the assistant surgeon under whose charge he was admitted. No patient may be discharged for a breach of discipline without the authority of the superintendent.

9. The assistant house-surgeon shall at once visit any case to which he is summoned by a dresser, sister, or nurse. He shall instruct the sister, when the need arises, to communicate with the friends of patients who are in a critical condition. In the event of a death in his wards he shall enter the cause of death in the book provided for the purpose by the Registrar General, and shall see that due notice is given in the superintendent's office, so that the cause of death may be stated on the post-mortem list.

10. The assistant house-surgeon shall not absent himself from the hospital during the hours of duty without informing his corresponding house-surgeon of his intention, and in his absence the corresponding house-surgeon shall perform his duties.

11. The assistant house-surgeon shall see out-patients, beginning at 11 o'clock on the day on which his assistant surgeon attends the department. He shall treat the patients entrusted to his care, and shall render such assistance as may be required of him by the assistant surgeon.

12. Cases which appear to him to be suitable for admission to the wards shall be referred by him to his assistant surgeon.

13. On Tuesdays and Fridays the assistant house-surgeon shall supervise his dressers in performing operations in the out-patient department, in accordance with the instructions of his assistant surgeon.

NOTICE TO CORRESPONDENTS.

The Editor wishes it to be understood that no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Court of Committees.

HOUSE COMMITTEE.

AT the last meeting of the House Committee the House-Surgeon for the week called the attention of the committee to an article in the GUY'S HOSPITAL GAZETTE for May 21st, 1898, referring to the Skigraphic Department. He stated that the working of the department had for various reasons proved unsatisfactory, and the committee agreed to refer the question to the Staff and School Committee for investigation.

It was announced that the Guy's Hospital Bill had received the Royal assent on the 23rd ult. It will be remembered that the main provisions of the Bill are—That governors shall be elected by the General Court, and not by the Court of Committees, as under the original Act; that the General Court shall have power by bye-law to fix the number of governors to be elected, provided that such number be not less than sixty; and that the Corporation may hold land to the yearly value of £60,000 (exclusive of the site of the hospital, school buildings, and grounds used in connection therewith), the previous limit having been £12,000 per annum.

On the recommendation of the Matron the following appointments were made:—Miss Creighton (Out-patient Sister) to be Sister of Stephen ward; Miss Witherington (Surgery Sister) to be Sister of Cornelius ward; Miss Davidson (Senior Night Sister) to be Sister of Lydia ward; Nurse Rowland Jones (Head Nurse in Stephen ward) to be Surgery Sister.

STAFF AND SCHOOL COMMITTEE.

On the recommendation of the Medical Committee the Staff and School Committee have approved of the appointment of a committee to issue a new edition of the Guy's Hospital Pharmacopœia, consisting of Drs. Goodhart, Galabin, Perry, Washbourn, Hale White, and Messrs. Brailey, Davies-Colley and Symonds.

The Staff and School Committee has instructed the Superintendent to give notice by circular to all members of the Visiting and Resident Staff who prescribe, that until the issue of the new edition of the Guy's Hospital Pharmacopœia all prescriptions will be dispensed in accordance with the B.P., 1885, unless specially marked B.P., 1898.

Standing Orders for House-Physicians, House-Surgeons and Assistant House-Surgeons were revised.

Agreed, as a tribute of respect to the memory of the senior governor, that the school should be closed on the day of Mr. Gladstone's funeral.

Nursing News.

On May 25th the following appointments were made by the House Committee:—Miss Creighton (Sister Jean) to be Sister of Stephen ward on July 1st. Miss Witherington (Sister Maud) to be Sister of Cornelius ward on July 1st. Miss Davidson (Sister Aimée) to be Sister of Lydia ward on August 1st. Miss Rowland Jones (Head Nurse in Stephen) to be Probationary Sister in charge of the Surgery on July 1st.

On June 1st, Miss Ogilvie (Sister Christine) took up the duties of Sister in the Out-patient Department.

We are glad to welcome amongst us again for "holiday duty," Mrs. Strathearn (Sister Bessie). For the present she is acting as Night Sister.

We are also hoping shortly to see Miss Lawrence (Sister Ella), who will undertake temporary duty in Charity ward.

Nurse Harmer left the hospital on June 1st to join the Private Nursing Staff.

News has come of the safe arrival of our three Nurses at Lokoja on the Niger, after a prosperous voyage.

Guy's Hospital Dental Society.

THE annual meeting was held on May 16th, at 4.30 p.m., with the president, R. Wynne Rouw, Esq., in the chair, in the chair. The society's prize was awarded to Mr. A. A. Bartholomew for his paper on "Taking impressions of the mouth. The following officers were elected for the coming year:—President: Mr. M. F. Hopson. Vice-Presidents: Mr. W. R. Wood, Mr. J. B. Parfitt, Dr. J. W. Pare. Hon. Treasurer: Mr. J. L. Payne. Hon. Secretary: Mr. P. H. Hayes-Palmer. Committee: Mr. E. B. Dowsett, Mr. P. S. Campkin, Mr. F. Warlow, Mr. J. Wilkes.

Review.

Synopsis of the British Pharmacopœia, 1898. Compile by H. Wippell Gadd. (London, Ballière, Tindall & Cox, King William Street, Strand, W.C. Price, paper covers, 6d., bound in cloth, 1s.)

This little work gives a complete synopsis of the new British Pharmacopœia, and shows concisely in what way the new work differs from that of 1885.

The alterations, additions and omissions, with explanatory notes are first given in a series of tables, and these are followed by an alphabetical list of all drugs and preparations of the new Pharmacopœia. The matter is arranged in columns, showing the name, dose, both imperial and metric, and remarks upon the preparations. An appendix gives tables of weights and measures, thermometic equivalents, atomic weights, etc. The book will be found very useful, especially to those preparing for examination. It can be easily carried in the waistcoat pocket for reference.

Passim.

On May 29th Guy's Hospital sustained another severe loss in the death of Sir Thomas Dyke Acland, Bart., who succeeded the late Mr. Gladstone as Senior Governor.

It is not without fitness that Sir Thomas Acland should have followed Mr. Gladstone so soon. They were close friends at Oxford, about 1830, and their friendship lasted their whole life, through all changes in political creeds. Mr. Gladstone became a Governor in 1835, Sir Thomas Acland in 1838, and now, after sixty years' personal interest in the hospital, and just ten days after his old colleague, he too has passed away.

The Annual Report of the hospital for 1897 which has just been issued to all subscribers to the Re-Endowment and Sustentation Funds, contains much food for thought. The principal point that strikes one in reading this report is the terribly hard task set before those in charge of the hospital to keep its pressing needs in front of the eyes of the public, and to get any adequate return for its good work in the shape of monetary help.

The Re-Endowment Fund moves by degrees, having risen from £172,000 to £209,000 during the year. This is slow progress, and the necessary half-million pounds will take a long while collecting in such easy stages. Allowance must be made, however, for the fact that the Governors very wisely forebore to make any special appeal in 1897, in order to divert as little attention as possible from the Prince of Wales's Hospital Fund, which needed a clear field, and we can only hope that those who have it in their power to help this hospital will not forget it in the immediate future.

The chief interest of the Report, to those working in the hospital, lies in some very carefully prepared statistics of the work done in successive years, and a few points selected from these may not be without interest. The number of in-patients remains practically stationary, being 6,609 last year, and about the same the year before. But not so with the out-patients; they are increasing year by year, and chiefly in the casualty department, 40,786 in 1896, 48,387 in 1897. This is practically all an increase in the front surgery work, as those who work there well know, for all first attendances at the front surgery are reckoned in this casualty list.

With advancing knowledge in surgical methods, more work is done in the surgical wards every year. The average residence of each surgical patient in the wards has decreased from 30·4 days in 1888 to 22·9 days in 1897; and the percentage mortality has gone down from 5·3 per cent. to 4·9 per cent. By way of contrast, however, the percentage mortality from accidents remains as high as it was ten years ago, and on the whole if anything is higher, 8·3 per cent. in 1888, 10·0 per cent. in 1897, but as the numbers are comparatively small, a few deaths more or less alter percentages in too marked a degree.

In the matter of the much-talked-of hospital abuse, we should like to quote the following passage from the Treasurer's Report:—"Generally, for the satisfaction of those who regard the out-patient system with disfavour, or fear its abuse, the authorities would like to put on record their conviction, based upon due investigation, that this department in Guy's Hospital is seldom improperly taken advantage of, and that with few exceptions the people attending the out-patient department are fit recipients of charitable relief."

By a fortunate coincidence we have received this week from South Africa a most appreciative tribute to the soundness and efficacy of Dr. Turner's work on Rinderpest, and the notice is appended to the final portion of his paper, which is published in to-day's issue. Apparently, rinderpest has for the time been practically stamped out, and as long as all cattle are kept under supervision there is no likelihood of any recrudesence of the epidemic. The paragraph is also valuable in contrasting the more efficient management of this matter in Rhodesia, as compared with the laxity of regulations in Cape Colony now that the acute stage of the epidemic has passed.

The Annual Athletic Sports have been postponed from Wednesday, June 15th, as previously stated, to Wednesday, June 22nd.

WE have been requested to withdraw, as unauthorised and incorrect, the statement which appeared in "Nursing News" of last GAZETTE, to the effect that Sisters Cornelius, Stephen and Lydia intend starting a surgical home in the West End. The information reached us from a usually official source, and we much regret having innocently caused these ladies any annoyance, and tender our most sincere apologies.

WE regret that owing to pressure of other essential matter we are unable to print the prize paper read before the Dental Society by Mr. Bartholomew, on "Impressions of the Mouth," in this GAZETTE, but it will be published in our next issue.

To general practitioners in the country at large nothing is more vexatious and annoying than the petty slanders and actions for malpraxis to which they are so often subject, and which are so frequently fatal to a good practice. We have before us the annual report of the Medical Defence Union, Limited, a company which was formed in 1885 to protect the character and interests of medical practitioners in the United Kingdom.

AN annual subscription of ten shillings entitles any medical man to membership, and as a member, when attacked, either by local scandal and malevolence, or by the ignorance of the public, he has simply to put the matter in the hands of the secretary of the Union, who deals with the offender for him. A single letter in the majority of cases is sufficient to extract an apology and retractation, for these people have no wish to fight a large and united body of professional men, and the practitioner is saved an excessive amount of worry and annoyance.

FROM these few remarks it will be seen how important it is for all newly registered practitioners to enrol themselves in this federation for their own protection, and any communication with the secretary of the Medical Defence Union, 20, King William Street, Strand, will receive prompt attention.

THE appointments of the six assistant house-surgeons commence on July 1st, and by the courtesy of the superintendent we have been furnished with their standing orders. As the appointments have now quite a different scope, we print these in full in another column. It is quite futile to criticise any apparent shortcomings before the scheme has had a practical trial, and we can only hope that some of the difficulties will turn out to be less serious in the working than they appear, more especially those relating to the daily shifting of responsibility from assistant house-surgeon to the corresponding full house-surgeon at night, if the assistant house-surgeon is not resident in the college.

THE revised standing orders for H.S.'s and H.P.'s are also now issued. In these there are several minor alterations, but none of any particular interest to the majority of men outside the Resident circle. In future both H.S.'s and H.P.'s are to commence their morning round not later than 10 a.m. (just think of four H.P.'s in Mary at 10 a.m.), and are usually to finish their evening round not later than 11 p.m. "Tempora mutantur, etc."

WE understand that the House Committee has decided to give all nurses, who from any cause have to leave the hospital before they can finish their three years' course, a certificate stating the time they have been at Guy's under instruction. This will be of great benefit to many nurses who may wish to apply for posts at other institutions, and who, previous to this, had nothing to show for the time spent here when that time was under three years.

THE issue of the 1898 British Pharmacopœia necessitates a revision of the Guy's Hospital Pharmacopœia, which was in conformity with the 1885 edition. In a letter in to-day's issue Dr. Perry appeals to all old Guy's men or present students for suggestions of value to this new edition. At his request we shall be only too pleased to welcome any correspondence on the subject in these columns.

THE May number of the *Guyoscope*, though somewhat belated, is with us at last. It is quite up to its usual high standard, and contains much good material, especially "Notes on a Clinical Lecture," and an article on "Patients," which will be more interesting to the general reader than the jests on purely local news. Mr. Stanley Cock is, unhappily, not represented in this number, and the illustrations are from the pen of Mr. Thomas, who, though not quite so successful as a caricaturist, is a better black and white artist. Another well-known hand we miss is that of the proof-reader.

Rinderpest:

ITS PATHOLOGY, AND THE MEANS USED TO COMBAT ITS INVASION OF SOUTH AFRICA.

Abstract of the Annual Presidential Address to the Cape Town Branch of the British Medical Association, delivered by the Vice-President,

GEORGE TURNER, M.B. (Cantab), M.R.C.S., D.P.H.
Medical Officer of Health for the Colony of the Cape of Good Hope; late Lecturer on Hygiene and Public Health at Guy's Hospital.

(*Concluded.*)

SERUM IMMUNITY.

The first material with which Dr. Koch attempted to produce immunity was the serum of a salted animal. You, gentlemen, will easily understand that to-day any bacteriologist would turn to that means first of all, more especially Koch, in whose laboratory and under whose directions the first experiments in serum treatment were carried out.

Koch demonstrated that 100 c.c. of the serum of a naturally salted animal conferred a short passive immunity, which, as is usual in such cases, reached its height a few hours after injection, and rapidly subsided.

An animal injected with 100 c.c. of such serum will resist perfectly the injection twelve hours after of enough blood to kill five hundred oxen. By the judicious use of blood this passive immunity can be changed into one which is both active and of long duration.

He also demonstrated that it was possible to fortify the weak serum of naturally immunised animals by the addition of 1 per cent. of virulent blood. If the mixture was allowed to stand twenty-four hours, then only 20 c.c. were required instead of 100.

The bile, promising more immediate results, occupied Dr. Koch's attention principally, and it is fortunate that it did, because to the process thousands of animals at this moment owe their lives.

Nevertheless, during the whole period of Koch's stay in South Africa, he carried on experiments with the serum. These were continued by me, at first alone, and latterly in conjunction with Dr. Kolle.

The dose of defibrinated blood or of serum taken from a naturally immune animal, or even from one fortified by the injection of 100 cubic centimetres of blood, although not great when the size of the animal is taken into consideration, appeared prohibitive.

If we bleed an animal to five litres of blood, we can expect to get about four litres of defibrinated blood—enough for twenty to forty animals. The blood cannot well be kept more than a few days under the most favourable conditions, and, moreover, it opens the road to the dissemination of various diseases, such as red-water, anthrax, etc.

Already, on the station, we have experienced the fact that animals have a peculiar sickness after the injection of small quantities of blood, and Dr. Kolle, during my absence in Pretoria, demonstrated that this is caused by the presence in the blood of an intracorpuscular parasite. The presence of this organism (which I believe has never yet been described) is signalised by low morning and high evening temperatures; the animal becomes weaker and weaker, very anæmic, and is apt to die suddenly, especially after bleeding. In some cases the animal suffers from loss of power in the posterior extremities, and cannot rise.

Post mortem, the tissues are coloured yellow, the blood is watery, does not coagulate well, and the spleen is generally very much enlarged. The urine is not bloody, and the parasite is not more frequent in the blood of the kidneys than in other organs.

This disease has unfortunately been spread, presumably by the injection of blood containing the parasite.

At the station the blood of all animals is examined microscopically before being used, but this could not be carried out in practice, and, in consequence, the use of defibrinated blood is not to be recommended.

It is an open question how the animals in the station became infected with this disease. It may have been the result of injections, despite all our care, or it may have been due to natural infection, because evidently there must be a process of natural infection, although we are not yet able to make any statement with regard to it. We were therefore anxious to accomplish two things:—First, to increase the immunising power of the blood; second, to prepare serum which would keep, and this preparation of serum itself was a considerable safeguard against the introduction of other diseases.

On the 16th July last, Dr. Kolle and I were in a position to inform the Agricultural Department that we had expectations of being able to prepare blood of such a strength that 30 c.c. would, if used in time, cut short an attack of rinderpest, and leave the animal salted.

The method employed was as follows:—

An animal naturally immunised, or one which had been given the disease after having been partially protected by gall or serum, and which had recovered and was again in good health, was injected subcutaneously with 100 c.c. of virulent blood.

The injection is followed by a rise of temperature, This is allowed to subside, and then an injection of 200 c.c. of blood is given; a second reaction occurs. This process is repeated with 500 and then with 1,000 c.c., with the same precautions, and then the animal is ready to be bled for the first time.

After two bleedings, 2,000 c.c. of rinderpest blood is injected. Again we have a reaction, and afterwards the bleeding is repeated twice.

Again, injection with 3,000, and lastly with 4,000 c.c. of virulent blood is practised, and the animal is considered as highly salted as it is possible to be.

Five thousand cubic centimetres appear to be a lethal dose, at least for medium-sized cattle. The only animal tested to this extent died, without the formation of any

abscess, apparently poisoned by the amount of toxin contained in so large a quantity of blood.

The large doses of blood are injected by means of a glass separator. The tube of the separator is connected by a gutta-percha tube with an ordinary subcutaneous injection needle of fairly large bore. For the glass stopper a perforated india-rubber cork and bent tube is substituted, the tube being attached to a rubber ball syringe, such as is used with a spray producer.

The greatest care is necessary to keep the defibrinated virulent blood aseptic. If this be done, there is no reason to fear the appearance of abscesses. But care must also be exercised not to inject it into the muscular tissue. When all injections were performed by Dr. Kolle, Mr. Phillips, Dr. Stoney, or myself, we never met with an abscess; but when the number of cattle was so increased that we had to allow injections to be performed by assistants, *i.e.*, since last September, abscesses have made their appearance, and several animals were injected into the muscular tissue; in consequence, about twelve were rendered useless for a time.

Animals which have suffered severely from rinderpest are not suited for the purpose of producing serum of high power. Many such animals have been sent to the station; some had already received as much as 100 c.c. of virulent blood. They were in a miserable condition, and several died directly an attempt was made to increase the immunity—some after 200, some after 500, and one other after receiving 1,000 c.c. of virulent blood. Evidently, they were so weakened they could not withstand the necessary febrile reaction, especially during the inclement weather which then prevailed.

Post-mortem examination showed the remains of the disease, now more than three months old; the fourth stomach was discoloured; the small intestines had the appearance of an eel skin; the guts were exceedingly thin, and evidently unfitted to act as digestive apparatus.

The serum is taken from the animal in the following manner:—

The ox is cast, the skin over the jugular vein is shaved and thoroughly disinfected, first with soap and water, and then with corrosive sublimate or carbolic acid.

A ligature is put round the neck sufficiently tightly to make the jugular vein swell, and an incision is made through the skin; a canula, as thick as a cedar pencil and four inches long attached to a gutta-percha tube, is then passed into the vein, and the tubing is put into a Loeffler's flask plugged with cotton wool, the canula, tubing, and flask having all been carefully disinfected by means of steam heat.

The flasks containing the blood are allowed to stand in a cool dark place for twenty-four hours; the serum poured off through the side tube into measured bottles, several samples are mixed, and 0·5 per cent. of phenol dissolved in a minimum quantity of water is added.

The phenolised serum, lastly, is decanted into eight-ounce medicine bottles, enough for ten doses, corked and sealed, and is then ready to be sent anywhere.

The medicine bottles and corks are sterilised by steam heat, and the corks are kept in absolute alcohol until required for use.

This process is a simplification of that followed in making serum for human beings. As you see, it is open to objections; the sterilisation is not ideal, and no attempt at filtration is made. But we have to do with animals, not human beings, and we have to make use of the best means available under the circumstances.

We find that twenty centimetres of this serum is sufficient to arrest the disease if injected before the end of the third day of high temperature; afterwards a second injection, or, preferably, the injection of a double quantity is advisable.

The serum has this advantage over the bile—it acts very rapidly and is curative. Thus, in an infected herd treated with bile, all those animals already infected before the injection of gall die. The same may be said of all those infected during the first two days after injection, fifty per cent. of those infected between the second and fourth days, and some even later.

With the serum, sick animals, unless they have already shown fever for three days, will recover. Those in the incubation stage may or may not present symptoms of a mild attack; but, in any case, they will recover, while those not already infected will not be attacked at all.

When first the immunising blood was employed in an infected herd, the results obtained caused much astonishment; many sick animals recovered, and the disease stopped. We were at our wits' end to supply sufficient immunising blood, but, of course, we knew that results of this kind would only raise false hopes soon destined to be destroyed.

Unless the animal injected with blood or serum has actually shown a febrile reaction, the immunity produced by ordinary doses is of brief duration—perhaps about fourteen days. I have no doubt that, during the first month, many hundreds of pounds worth of blood and serum were injected to waste.

In the meantime we were occupied in devising some fairly safe method by which prolonged immunity might be conferred on healthy animals.

Our French friends accomplish this by smearing the nostrils of the animals, as they are injected, with rinderpest blood, fæces, slime, etc., and then put them in a kraal with animals suffering from the disease. In our opinion this method gives uncertain results, especially with strong serum, and we searched for some means of ensuring infection with the least possible danger.

At first we injected the serum, and then at certain intervals injected virulent blood. We succeeded in salting animals in this way, but found that the effects were exceedingly irregular.

If the dose of virulent blood was sufficient to infect all the animals in the herd, some had the disease seriously and died; if less blood was used, then some escaped. It was useless to vary the interval between the two injections, because the immunising substance is excreted at

various rates by different animals; consequently, by the fourth day, some animals are nearly free from the immunising substance, and, unless the serum be repeated, will die after receiving the blood; others still retain so much in their systems that they resist the dose, and are not immunised.

To obviate this we have injected 1 c.c. of virulent blood on one side, and 20 c.c. of the serum on the other; thus we eliminate the differences in the rate of excretion to a very great extent.

We have been assured that this proceeding is unphysiological; that the mixture takes place so quickly that the two fluids might as well have been mixed before injection.

No doubt, if the blood and serum were both injected into the circulation, this would be true, but it does not hold good where the injections are made into the cellular tissue.

Both the virus and the serum begin to enter into the blood very quickly; but there is an essential difference between the two liquids. The little of the serum which is first absorbed is greatly diluted, and does not commence to produce its effect under some hours. On the other hand, the small quantity of effective material absorbed from the virulent blood is living, the serum is still in too small quantity in the blood to exert much influence, the virus multiplies and multiplies in a medium which gradually becomes more and more antagonistic to its growth. The result is that the fever is modified, and the greater number of animals escape without further trouble.

There is another element of uncertainty in these experiments. I refer to the different strengths of the serum yielded by different animals prepared as far as possible under identical conditions.

There is no doubt that the serum varies in strength, and this is the consequence, because we are obliged to fit the dose of infectious material to the strength of the serum. Thus a dose of blood which would act satisfactorily with a serum capable of immunising for ten days in doses of 20 c.c. would be too much when used with one which required 30 c.c. to accomplish the same end, if the same quantity of serum, viz., 20 c.c., were employed.

We propose to overcome these difficulties in two ways: First, by mixing the serum obtained from many animals. This of itself tends to produce an average strength.

Secondly, by actually testing the strength of the various samples of serum before sending it out. As the serum can be kept for a considerable time, we have an opportunity to do this.

We are now devising means to titrate the serum with a minimum loss of life. At this moment a carboy containing 20 litres of carbolised serum is standing in the laboratory. This will be thus tested, the dose of blood ascertained, and it will then be issued with instructions as exact as it is practicable. Up to now we have been too much pressed to provide serum to be able to reserve large quantities, but by degrees it will be accomplished.

There is still a third difficulty, one which we cannot well avoid. It is the varying strength of the infecting blood. The strength of the blood evidently does vary, because by cultivation the incubation period is shortened. I see no way out of this difficulty, but I am glad to say that I have not noticed that it was of serious importance up to the present.

The following list has been compiled absolutely without selection from the returns we have received. It relates to less than 2,000 animals, although enough serum has been issued to treat 40,000.

NUMBER OF CATTLE INJECTED WITH IMMUNISING SERUM.

Date.	Place.	No. of Cattle Injected.	No. of Cattle Ill.	Recovered.	Died.	Percentage of Recoveries.
July 29	Alice	30	30	25	5	83·4
Aug. 23	Cathcart ...	110	39	85	25	77·3
28	Beaufort West...	30	...	28	2	93·4
31	Graaff-Reinet. ...	15	12	12	3	80·0
30	Aberdeen ...	150	150	115	35	70·4
Sept. 1	Cathcart ...	64	64	2	62	0·2
7	,, ...	190	42	189	1	99·4
8	,, ...	230	...	228	2	99·1
8	Middleburg ...	20	*20	8	12	40·4†
8	,, ...	20	20	20	0	100·0
9	Griqualand West	138	138	100	38	72·5
9	Britstown ...	37	37	31	6	83·8
9	,, ...	206	...	206	0	100·0
9	Middleburg ...	5	5	3	2	60·0
18	Colesburg ...	57	57	29	28	50 0
21	Herbert ...	26	26	26	0	100·0
30	Richmond ...	33	...	31	2	93·9
Oct. 5	Kenhardt ...	350	...	300	50	83·4‡
18	Griqua Town ...	9	9	7	2	77·7
25*	Graaff-Reinet ...	15	15	15	0	100 0
25*	,, ...	2	2	0	2	0·0§
25*	,, ...	18	...	17	1	94·4
25*	,, ...	66	...	65	1	98 4‖
25*	,, ...	24	24	23	1	95·8
12	Piquetberg Road	123	123	13	110	10·5
	Total ...	1968	...	1578	390	80·2

* These dates are those of the reports, not of the inoculations.
† Stated to be very ill.
‡ Forty dead before.
§ Stated to be in last stage.
‖ Fifty per cent. had Tr. 104°—107°.

This shows that, out of 1,968 animals treated with serum, 1,578 recovered, equivalent to 80 per cent.

The last entry was the greatest failure, and details have only just now come to hand. It appears that out of 123 animals, only 13 salted, although many were injected several times.

The first experiment with simultaneous injections of serum and blood were made on 29 animals at this station.

They were treated as follows:—

No. of animals.	Dose of serum.	No. which died.
11	20 c.c.	1
12	10 c.c.	8
6	5 c.c.	6

These animals were not treated in any way; we did not even administer a second dose of serum, which, in case of necessity, the farmer would be in a position to do with good effect.

Besides these, we have treated 7 other beasts in a similar manner, except that we have employed 30 c.c. of defibrinated immunising blood instead of the 20 c.c. of serum, in order to demonstrate that the action of both fluids is similar. One of these animals died; all the remainder were sick, but recovered.

Experiments have since been made outside the station.

List of Simultaneous Inoculations.

Date.	Place.	No. of Cattle.	No. recovered.	No. dead.	Per cent. recoveries.
Sep. 7	Beaconsfield	22 all sick	22	0	100
Sep. 8	Griqual'd West	37 all sick	37	0	100
Sep. 17	Kimberley	27	26	1	96·3
Sep. 23	Jacobsdaal	52 all sick	50	2*	96·1
Oct. 4	Belmont	7	6	1	85·7
	Total	145	141	4	97·3

The two animals marked * were sick before the injection, and did not receive any virulent blood, and died on the next day, viz., September 24th. These two animals should be omitted from the list, which would then read 143 inoculations, 141 salted, equal to 98·4 per cent.

The serum treatment is, of course, still in its infancy. Both Dr. Kolle and I will be disappointed if we cannot modify it, and render it more certain and more simple. We are continuing our experiments with that object in view.

The importance of titrating the serum has, however, been emphasised at the station recently. Animals were injected with four samples of serum. In the first lot of 32, 65 per cent. died; in the second lot of seven, four or 57 per cent. died; in the third batch of ten, four or 40 per cent. died; *and in the fourth batch of ten, all salted.* The only cause for this difference can be the varying strength of the serum; the strength of the infecting blood is out of the question, because the last three batches were infected with the same sample of blood.

It amounts to this: the process is capable of giving excellent results, but it requires care. The great thing is to titrate the serum. This we pointed out as a prime necessity for success before we published the process we at present adopt.

Much unnecessary fuss, in my opinion, has been made over the question of priority in the use of serum in rinderpest. The man who troubles himself about such a matter would be much in the position of a man who, having first applied steam power to a sausage machine, fancied he was a second Watts.

Rinderpest Policy.

(From the *Diamond Fields Advertiser*, April 30th, 1898.

It is matter for sincere congratulation that the system of serum inoculation devised by Drs. Turner and Kolle has not in any way belied the sanguine anticipations of its inventors. The statistics, which we were able to publish yesterday, relate to experiments on a sufficiently large scale, and under sufficiently practical conditions, to make it possible to say that the success of the system is placed beyond all reasonable doubt. Like the tortoise, "science moves but slowly, slowly, creeping on from point to point": while the rinderpest microbe covers distance with more than the celerity of an express train. Still, science now holds the field, and, if properly backed up by lay efforts, will eventually win the day. Rinderpest has been robbed of more than half its terrors, and the cattle farmers of South Africa need no longer despair. We have reached a point in the struggle when it is well to look back a little and assign credit where credit is primarily due. No unbiassed person can doubt that the credit of checking the spread of this dread murrain, otherwise than by wholesale slaughtering, belongs in the first instance to the eminent German bacteriologist, Professor Koch. We say this the more readily because there has been a disposition in some quarters to decry the value of Dr. Koch's services, not so much from any desire to do him an injustice because he happens to be a foreigner, but simply, we believe, from misconception on the part of the public of the real facts. Science knows nothing of international jealousies, and Dr. Koch's labours are every bit as highly esteemed by leading bacteriologists in England as they are in his own country. The root of the misconception regarding Dr. Koch lies in the fact that while his method of gall inoculation did undoubtedly confer immunity for a time, that immunity did not prove lasting in its effects. Dr. Koch himself never said that it would, only, at the most, that he hoped it would. At a very critical time, when rinderpest was traversing the land with Gargantuan strides, and sweeping off horned cattle like chaff before the wind, the success, for the time being, of Koch's system was of enormous importance. It held the rinderpest in check, while science continued its researches. Bile inoculation, it is computed, saved 1,200,000 cattle in the Cape Colony, 70,000 in Basutoland, and an enormous number in the Free State and the Transvaal, regarding which countries there are no statistics available. That in itself was no mean achievement. But in addition, Dr. Koch began those experiments in serum inoculation which, since continued by Dr. Turner, in conjunction with Dr. Kohlstock, and more recently with Dr. Kolle, a rising young German bacteriologist, who came to this country fresh from Dr. Koch's laboratory in Berlin, have been crowned with such brilliant success. There is no fear, or there ought to be no fear, that the value of the work done by Drs. Turner and Kolle will ever be under estimated; and

it is therefore all the more opportune to insist on the primary debt of gratitude which those gentlemen would be first to recognise as belonging to the master in whose laboratory serum was first applied to the treatment of disease.

Serum inoculation having been on trial in the Colony for about six months, it seems strange that the first statistics of any value on the subject should come from Rhodesia, where operations have only just begun. It speaks well for the energy and efficiency of the Chartered Company's administration, that they should have been able thus early to collate facts and figures for which people have long been asking the Cape Government and asking in vain. We fear that the Agricultural Department has lapsed into one of its periodical fits of slumber and fails to understand, that while much has been done, there is still much to do if the salvation of the country is to be placed beyond all question. It seems to be assumed that because the stock farmers are no longer in a state of panic about their cattle, that there is no longer any serious danger. This strikes us as a very great mistake. It is no doubt a very great point to have the means of holding the rinderpest in check, but it is equally important, having got it, to make the best use of it. We are not by any means out of the wood yet, nor shall we be until the Minister for Agriculture wakes up to the importance of taking wholesale measures for the protection of the remaining stock of the country. It must be remembered that the immunity conferred by Koch's method by hundreds of thousands of head of cattle in this country is gradually wearing off, and unless measures are taken to re-inoculate these animals with serum they will be liable to catch and spread the infection. Something no doubt is being done in the right direction by the establishment of inoculation stations at various centres, but we cannot help fearing that the tinkering, half-hearted methods too often characteristic of our administrators in recent years are likely to be employed in the present instance. Not only does the Government seem to lack the courage to make inoculation compulsory —which, in our opinion, is the only way of stamping out the disease within the lifetime of the present generation —but from the absence of any serious attempt on its part to educate the public by making known the very satisfactory results which have been achieved, it offers no inducement to cattle owners to re-inoculate their stock. Cattle owners are waiting upon the Government, and the Government apparently is waiting in turn upon a department which does not possess the means of collecting the data required, or at all events of making them known to the public.

They do these things better in Rhodesia. There the Acting Administrator has grasped the situation, and, in spite of some opposition at first, has made inoculation compulsory for cattle moving about the country. Only salted oxen are now to be met with on the road, each animal being branded with the place and date of inoculation; and any animals found travelling without this hall-mark are promptly seized and sent off to the nearest rinderpest station. In this manner the danger of the disease being carried from an infected area is enormously minimised. In the Cape Colony, on the contrary, measures of precaution seem to have been cast to the four winds—in deference to the farmer's dislike of Government regulations—and the Government, having no policy worthy of the name, appears to be allowing things to drift. The truth, we fear, is that the Government hesitates to make regulations for fear a certain class of people whose influence is very great in the House of Assembly should decline to obey them, and the Colony is once more being exposed to danger for the want of a little backbone. We expect better things than this from a man of Sir Pieter Faure's capacity and merit.

Guy's Hospital Clubs' Union.

ANNUAL REPORT, 1897-98.

THE council of the Clubs' Union have much pleasure in presenting the sixth annual report of the progress of the Union, together with a statement of the receipts and expenditure since April 1st, 1897. The total number of members on March 31st, 1898, was 1,881, of whom 1,650 are life-members, 200 annual subscribers and 31 patrons, an increase of 75 since last season.

The continued support accorded by the Governors, the consulting and acting staff and old Guy's men is very gratifying to the Council. There are still a few old Guy's men who have not paid the life subscription of one guinea, and we again venture to draw their attention to the advantages of having their names and addresses printed in the Clubs' Union Blue Book. This book acts as a most useful directory, and is of the greatest convenience to members when in search of the names and addresses of Guy's men in any particular place to which they may be going or to which they may be sending patients.

During the winter months, Harris, the groundman, has continued and completed the levelling of the ground at Honor Oak Park. The work has been carried out in a most efficient manner, and the ground now looks better than it has ever done before. Two more tennis courts have been added. A stove has been placed in the members' dressing room, and has proved an additional comfort during the winter months. A verandah has been added to the pavilion, and palings have been erected around the pavilion, the former the gift of Dr. Pye-Smith, the latter the gift of Mr. Brailey. These two gifts have not only improved the appearance of the pavilion, but have added very much to the comfort of the members. The Council again takes this opportunity of thanking Dr. Pye-Smith and Mr. Brailey for their generosity. Several photographs of hospital teams have been presented by Mr. W. I. Hancock, and are now adorning the walls of the ground-floor room.

The agreements with the St. Germans' Cricket Club and Travers and Sons' Cricket Club have been renewed.

Permission has also been granted to the members of the Guy's Hospital Servants' Cricket Club to practice cricket on two evenings in each week during the season.

The ground was again selected last summer by the United Hospitals' Cricket Club for the Inter-Hospital matches.

The Athletic Club held their annual meeting on the Clubs' Union ground on June 9th, 1897, and the meeting will be again held there this year on June 15th.

The best thanks of the Council are due to the officers of the constituent institutions, to the auditors, and to the able and untiring assistance of Mr. Croucher and the other members of the school office staff.

The income for the year was £1,825 2s. 11d., the expenditure £1,686 1s. 8d., leaving a balance of £139 1s. 3d.

Statement of Receipts and Expenditure from 1st April, 1897, to 31st March, 1898.

1897 RECEIPTS.	£ s. d.	£ s. d.
April 1.		
To balance at Bankers ...	78 9 7	
„ Petty Cash, balance in hand	4 9 8	
		82 19 3
Aug. 31.		
To Subscriptions & Donations from April 1st, to August 31st, 1897	337 7 0	
1898		
March 31.		
To Subscriptions & Donations from September 1st, 1897, to March 31st, 1898 ...	1,152 12 0	
		1,489 19 0
„ Grant from Medical School for 1897 ...		100 0 0
„ „ Dental „ „ ...		15 0 0
„ Rent from Tenants		90 0 0
„ „ U. H. C. C.		4 4 0
„ „ Lockers		18 16 0
„ Gate Receipts		18 17 0
„ Blue Book Advertisements		38 6 11
„ Sale of Railway Tickets		50 0 0
		£1,908 2 2

1898 EXPENDITURE.	£ s. d.	£ s. d.
March 31.		
By Grants to Constituent Institutions—		
Athletic Club	40 0 0	
Bicycle Club	5 17 6	
Cricket Club	17 15 11	
Debating Society ...	4 0 0	
Dental Society	19 18 0	
Football Club, Association	11 4 4	
„ Rugby	23 12 4	
Guy's Hospital Gazette	270 2 6	
Do. Physical Society	24 0 3	
Do. Reports	255 2 6	
Do. Rifle Association	9 19 7	
Do. Students' Club...	331 18 0	
Swimming Club ...	2 10 0	
Tennis Club	14 5 8	
		1,030 6 7
By Field, Current Expenses ...	201 1 10	
Rent Account ...	234 10 0	
		435 11 10
„ Management Expenses—		
Printing and Stationery	63 3 4	
Secretarial Expenses ...	48 15 6	
Postage	2 18 6	
Insurance	1 7 0	
		116 4 4
„ Railway Ticket Deposit A/c		50 0 0
„ Rates and Taxes		48 14 2
„ Petty Cash Expenditure ...		5 4 9
„ Balance at Bankers ...	217 15 7	
„ „ of Petty Cash in hand	4 4 11	
		222 0 6
		£1,908 0 2

May 18th, 1898. Audited and found correct,
THOS. G. STEVENS,
EDWARD FISK.

FREDERICK TAYLOR, Treasurer.
J. H. BRYANT, Hon. Sec.

List of Books recently added to the Hospital Library.

BY THE AUTHORS—
- Hale White's Materia Medica, 2nd edition.
- Croonian Lectures for 1897.
- In a House of Pain.
- Jacobson's The Operations of Surgery, 3rd edition.
- Oswald Browne's Aneurysm of the Aorta.
- Phillips' Diseases of Women.
- Taylor's System of Sight-Singing.
- Wade's Organic Chemistry.

By Mr. F. E. Fremantle—
- Local Government Board—
  - Report on Oyster Fisheries.
  - Report on Cholera in England in 1893.
  - 23rd Annual Report of the Medical Officer.
  - 24th do. do.
  - 25th do. do.
- Report on Bubonic Plague, Hong Kong.
- Do. do. India.
- Sixth and Final Reports of the Royal Commission on Vaccination, with Appendices iv. to viii.
- Report on Swine Fever.
- Do. Experiments on Living Animals.
- India Contagious Diseases Act.

Dr. C. E. Aikin—
- Transactions of the Medico-Chirurgical Society, vols. 1 to 10 and vols. 50 to 79 omitting vol. 68
- Transactions of the Pathological Society, vols. 2 to 45 omitting vols. 1, 4 and 10.

Dr. Ingram Stevens—
- Lancet, 1856 to 1863.

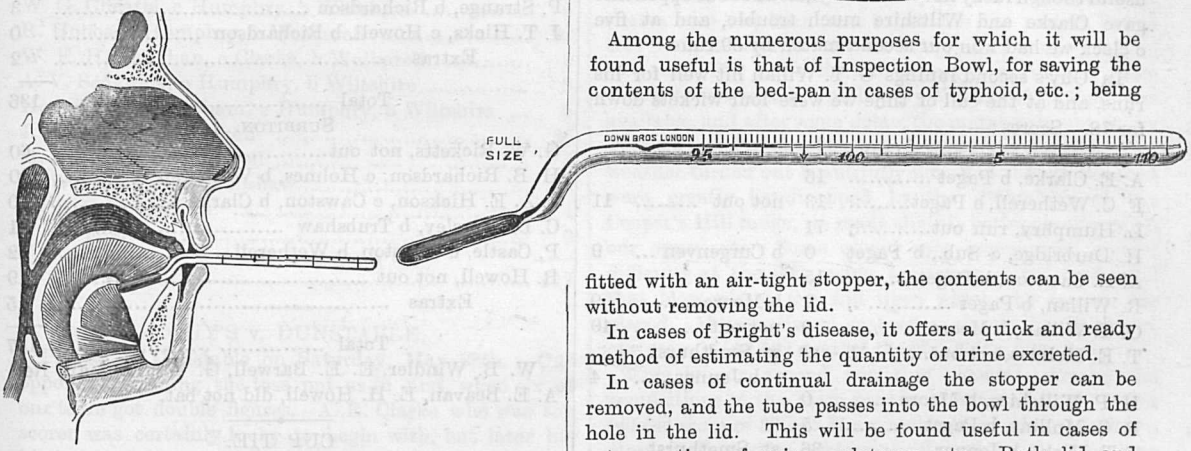
Novelties.

MATERIA MEDICA, PHARMACY, ETC.

AN IMPROVED CLINICAL THERMOMETER.

In taking a patient's temperature, difficulty is sometimes experienced in making the patient place the thermometer in the right position in the mouth, and also in their retaining it there. These difficulties are greatly reduced by using a thermometer which has been made for me by Messrs. Down Bros., which has a double bend in it, as shown in the illustration, and for which the following advantages are claimed.

1. That it is more comfortable to the patient.
2. That it naturally falls into a better position in the mouth.



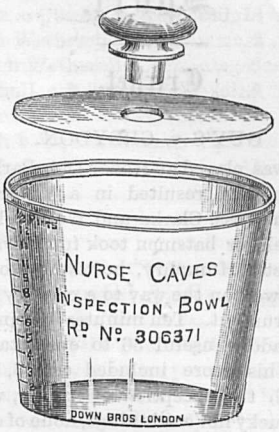
3. That it is more easily retained in position.
4. That the tongue can lie right down on the bulb, and there is no space left in the floor of the mouth for the saliva to collect.
5. That the temperature is taken in a shorter time, and it is in complete contact with the mucous membrane of the tongue and mouth, it does not lie in a pool of saliva, or in such a position that the air can pass freely over it. In order to demonstrate these qualities it is only necessary to place first the wrong end of the thermometer in one's own mouth, and then the bulb end, when at once the great difference will be appreciated.

A. HEYGATE VERNON, F.R.C.S.

Christchurch Road,
Boscombe, Bournemouth,
14th April, 1898.

THE "CAVE" BOWL.

The glass graduated bowl shown in the illustration has been made by Messrs. Down Bros., St. Thomas's Street, London, at the suggestion of Nurse Cave, of the Wolverhampton General Hospital, who has registered the design.



Among the numerous purposes for which it will be found useful is that of Inspection Bowl, for saving the contents of the bed-pan in cases of typhoid, etc.; being fitted with an air-tight stopper, the contents can be seen without removing the lid.

In cases of Bright's disease, it offers a quick and ready method of estimating the quantity of urine excreted.

In cases of continual drainage the stopper can be removed, and the tube passes into the bowl through the hole in the lid. This will be found useful in cases of extravasation of urine, colotomy, etc. Both lid and stopper are removable, thus the bowl can readily be cleansed in every part.

Pass List.

University of Cambridge.

The Degree of Doctor in Medicine was conferred on Maurice Craig.

Royal College of Surgeons of England.

PRIMARY FELLOWSHIP EXAMINATION, MAY, 1898.

(Unofficial list.)

P. W. L. Camps, F. G. Cross, D. G. Greenfield, H. McD. Parrott, N. F. Ticehurst.

(UNOFFICIAL LIST).

EXAMINATION FOR THE DIPLOMA IN DENTAL SURGERY.

J. Harper, W. H. Loosely, C. D. Outred, A. L. Rowley, F. W. S. Stone, E. Stringfellow, D. P. Tracy, R. Umney, E. W. West, T. H. Wilkinson.

Sport.

Cricket.

GUY'S v. CROYDON.

This match was played at Honor Oak Park on Wednesday, May 18th, and resulted in a victory for Guy's. Having won the toss, Clarke and Wetherell opened our innings, but neither batsmen took full advantage of the excellent wicket. Humphry, however, proved in grand form, and was well on the way to a century when he was unfortunately run out. Ten minutes' batting was enough for Hicks to add a useful 36 to our total; he missed nothing, and his score included one 6, five 4's and four 2's. With the exception of Archer, who played a useful though lucky not out innings, none of our opponents gave Clarke and Wiltshire much trouble, and at five o'clock we had won our second match by 59 runs.

In Guy's second innings G. T. Willan hit well for his runs, and at the call of time we were four wickets down for 78. Scores:—

GUY'S.

A. E. Clarke, b Paget	16		
F. C. Wetherell, b Paget	13	not out	11
L. Humphry, run out	71		
H. Durbridge, c Sub., b Paget	0	b Curgenven	9
A. E. Cawston, b Paget	15		
R. Willan, b Paget	2	b Moore	9
G. T. Willan, b Moore	0	not out	40
T. E. Holmes, not out	9	st. Smethurst, b Jenner	4
H. P. Wiltshire, b Moore	0		
R. C. Mullins, b Paget	5		
J. T. Hicks, b Jenner	36	st. Smethurst, b Jenner	0
Extras	24	Extras	5
Total	190	Total	78

CROYDON.

Rev. C. A. Curgenven, c G. T. Willan, b Wiltshire	5
G. T. Long, c Hicks, b Clarke	13
D. R. Moore, c Humphry, b Wiltshire	2
C. G. Paget, c Humphry, b Wiltshire	0
F. Hill, b Wiltshire	17
J. A. Archer, not out	50
W. S. B. Jenner, c Mullins, b Clarke	14
G. A. Smethurst, run out	10
A. C. Harper, b Clarke	10
A. Biscoe, b Wetherell	0
Extras	10
Total	131

GUY'S v. SURBITON.

Played at Surbiton on May 21st. Owing to the saturated state of the ground, play was impossible until 12.30.

Although Guy's opened well, 50 being up for the first wicket, our team did not shine as a batting side, as, with the exception of M. C. Wetherell, the last seven wickets only added 14 runs.

Surbiton made light work of knocking off the required runs, and at the call of time had scored 157 for four wickets, G. W. Ricketts who went in first being responsible for an excellent 60 not out. Scores:—

GUY'S.

A. E. Clarke, c Worsley, b Ricketts	41
F. C. Wetherell, c Howell, b Ricketts	23
K. V. Trubshaw, c & b Worsley	18
J. M. Brydone, c Howell, b Ricketts	14
L. Humphry, c Ricketts, b Worsley	0
M. C. Wetherell, b Windler	24
G. T. Willan, c & b Worsley	0
A. E. Cawston, st Hickson, b Ricketts	9
T. E. Holmes, not out	2
P. Strange, b Richardson	3
J. T. Hicks, c Howell, b Richardson	0
Extras	2
Total	136

SURBITON.

G. W. Ricketts, not out	60
H. B. Richardson, c Holmes, b Wetherell	20
J. A. E. Hickson, c Cawston, b Clarke	10
C. D. Worsley, b Trubshaw	11
P. Castle, c Cawston, b Wetherell	32
R. Howell, not out	19
Extras	5
Total	157

W. B. Windler, E. E. Barwell, G. W. Tireman, Rev. A. E. Beavan, E. H. Howell, did not bat.

CUP TIE.

GUY'S v. ST. MARY'S.

We were fortunate in having a grand day for this match on our ground on Friday, May 27th, and everyone thoroughly appreciated it after the miserable weather we have been having. The wicket was good, and Guy's having won the toss, began batting to the bowling of Page and Sedgwick.

The telegraph soon showed 21 for 5, and our prospects certainly looked very black. On M. C. Wetherell and Durbridge getting together, St. Mary's either became slack in the field or were unfortunate, and both batsmen being aware of the fact, made such good use of it that 93 runs were added before they were separated. After lunch, Wiltshire joined Wetherell, and a few runs later the latter was out for a magnificent 63, which included one 6 and eight 3's.

It seemed more than likely that Mary's would be able to beat our total, as we were without the services of Clarke's bowling, owing to his having injured his knee. F. C. Wetherell and Wiltshire, however, proved quite equal to the occasion, and Guy's were left victorious by 38 runs. Humphry was again in form behind the sticks. Scores:—

GUY'S.

A. E. Clarke, c Sedgwick, b Page	5
F. C. Wetherell, b Page	2
K. V. Trubshaw, b Page	8
J. M. Brydone, b Sedgwick	6
L. Humphry, b Sedgwick	0
H. Durbridge, c Sedgwick, b Page	39
M. C. Wetherell, b Sedgwick	63
A. E. Cawston, st Sharples, b Page	5
G. T. Willan, b Sedgwick	10
H. P. Wiltshire, not out	6
J. T. Hicks, c Gonin, b Page	4
Extras	7
Total	155

ST. MARY'S.

R. R. Cruise lbw Wetherell	9
J. F. Skrimshire, c Clarke, b Wiltshire	8
W. G. Cheatle, c Humphry, b Wiltshire	6
R. Hobbs, c Humphry, b Wetherell	22
W. F. H. Vaughan, c Clarke, b Wetherell	9
A. V. Sedgwick, c Humphry, b Wiltshire	3
Hon. R. B. Wilbraham, c Humphry, b Wiltshire	5
J. Sharples, b Wetherell	26
H. C. Baker, b Wetherell	8
B. W. Gonin, lbw Trubshaw	8
W. S. Page, not out	4
Extras	9
Total	117

GUY'S v. DUNSTABLE.

Played at Dunstable on Saturday, May 28th. Our opponents winning the toss put us in first, when six of our team got double figures. A. E. Clarke who was top scorer was certainly lucky to begin with, but later his hitting was clean and hard.

Dunstable's total having only reached 94, they had to follow on, when L. C. R. Thring batted well for his runs. F. C. Wetherell took seven wickets for 29 runs. Scores:—

GUY'S.

A. E. Clarke, c J. Healing, b Brown	67
F. C. Wetherell, c White, b Giddins	7
K. V. Trubshaw, lbw b Brown	24
L. Humphry, b Giddins	16
A. E. Cawston, b Giddins	28
H. Durbridge, c Green, b Giddins	23
M. C. Wetherell, run out	8
R. C. Mullins, b Thring	14
E. Cohen, b Thring	0
H. P. Wiltshire, not out	4
E. L. Hyde, (sub)., b Giddins	1
Extras	18
Total	210

DUNSTABLE GRAMMAR SCHOOL.

J. H. Metcalf, c Causton, b Wetherall	12	b Trubshaw	3
H. White, c Clarke, b Wiltshire	2		
T. A. Giddins, b Wiltshire	3	c Clarke, b Trubshaw	14
L. C. R. Thring, b Wetherell	17	not out	47
W. F. Brown, c Clarke, b Wetherell	18		
J. Healing, b Wetherell	2	b Trubshaw	4
E. C. Green, b Wetherell	6	not out	4
W. W. Marshall, c & b Trubshaw	6		
MacDonald, c Trubshaw, b Wetherell	1		
H. Holloway, b Wetherell	5		
W. Heseltine, not out	15		
Extras	7	Extras	5
Total	94	3 wkts	77

Guy's Hospital Rifle Association.

GUY'S v. R.I.E.C.

On Saturday, May 21st, we journeyed to Cooper's Hill, to fulfil our engagement with the R.I.E.C. On arriving at the range we were informed by the sergeant-major that a wire had been sent to scratch the match, but as this arrived after we left the hospital, it was too late to stop us. For some time it appeared as though there would be no match, but luckily the R.I.E.C. eight was available, and after some delay, the match commenced by Pearson and Stanley-Turner going down at the 200. The weather turned out beautifully fine, and though our men were greatly handicapped by the difficulties of the Cooper's Hill range, we made slightly better practice than our opponents. Some of our men experienced greater difficulty at the 500, owing to various samples of wind that blow round the hill upon which the targets are placed. Eventually we secured a victory by 17 points, our score being 402 against the R.I.E.C's. 385.

This is our second win this season. Among the acquisitions to the team may be mentioned J. A. Glover (whose score of 33 out of a possible 35 at 500 yards was a most praiseworthy performance) and O. Travers, who has several times represented Tonbridge School in the Ashburton competition at the Bisley meeting.

We have now some very good material at the hospital, and with steady practice there is no earthly reason why we should not make a very good fight at Bisley for the inter-hospital trophy.

Men want encouragement to become volunteers, and nothing would prove a greater stimulus than for one of the teaching staff to take a commission in, say such a corps as the 20th Middlesex (Artists) R.V., which corps certainly seems to be the most attractive to Guy's men.

For the information of new men I should like to summarise the conditions regulating the inter-hospital competition at Bisley.

1. Men *must be volunteers*, efficient for either the current year or the past one.

2. A man may represent the hospital for *six* years, *i.e.*, men of *not more* than six years' hospital standing.

3. Each member of the winning team receives a prize, given by the U.H.R.A.

4. The man making the highest score in the competition receives a prize consisting of a valuable case of surgical instruments.

Our scores are subjoined :—

GUY'S.

	200yds.	500yds.	Aggte.
A. Pearson	27	20	47
H. Stanley-Turner	25	24	49
P. L. Hickes	29	23	52
F. G. Gibson	17	27	44
O. Travers	27	24	51
J. A. Glover	25	33	58
B. W. Moss	26	25	51
T. R. Beale-Browne	20	30	50
Total			402
R.I.E.C.			Total 385

Guy's Hospital Lawn Tennis Club.

Owing to the almost incessant rain our matches with Connaught, Thursday, May 19, with Weighton, Saturday, May 21st, and with Albemarle, Tuesday, May 31st, have had to be postponed; whilst the match with Wanstead had also to be cancelled on account of their having to meet Connaught in the Essex County Cup Competition, on the day on which we were to play them, May 28th.

PAST v. PRESENT.

The annual match between the Past and Present students was played at Honor Oak Park on Whit Monday, and resulted in a win for the Past by 8 matches to 6, 18 sets to 15, 163 games to 143. The Past were a good lot, including as they did some well-known players captained by Dr. Goodall; the same cannot be said of the Present team, numerous late scratchings having reduced the side to a very average lot.

Mandy and Lacey were the best pair in the doubles for the Present, having a clean sheet. Swan and Humphry played well considering their untrained condition.

Lacey was the only player to capture a match in the singles. Altogether a very pleasant day was spent at Honor Oak, marred only by rain which began to fall late in the afternoon. Score :—

SINGLES.—P. S. Mandy lost to S. Rivers, 2–6, 0–6; E. W. S. Rowland lost to A. B. Carter, 4–6, 2–6; H. K. Lacey beat J. E. Coulson, 6–4, 6–3; R. H. J. Swan lost to H. T. Hicks, 6–4, 4–6, 2–6; F. E. Fremantle lost to E. W. Goodall, 4–6, 2–6; L. Humphry lost to J. W. Washbourn, 2–6, 6–4, 3–6.

DOUBLES.—P. S. Mandy and H. K. Lacey beat S. Rivers and A. B. Carter, 6–2, 5–7, 6–4; beat J. W. Washbourn and H. T. Hicks, 2–6, 6–3, 6–0; beat E. W. Goodall and J. E. Coulson, 8–6, 6–4. E. W. S. Rowland and F. E. Fremantle beat E. W. Goodall and J. E. Coulson, 6–4, 6–3; lost to S. Rivers and A. B. Carter, 1–6, 1–6; did not play J. W. Washbourn and H. T. Hicks. L. Humphry and R. H. J. Swan lost to J. W. Washbourn and H. T. Hicks, 4–6, 6–3, 6–8; beat E. W. Goodall and J. E. Coulson, 7–5, 6–3; lost to A. B. Carter and S. Rivers, 2–6, 4–6.

LAWN TENNIS CHAMPIONSHIP DRAW.

F. E. Fremantle ... / P. Cole ... — E. L. R. Kelsey ... / E. W. S. Rowland —
A. E. King ... / G. T. Willan ... — C. H. Bubb ... / H. K. Lacey ... —
F. C. Wetherell ... / A. C. Ransford ... — P. S. Mandy ... / G. S. Robertson ... —
L. G. Nash ... / M. C. Wetherell ... — F. G. Cross bye —

1st Round 2nd 3rd Final.

The 1st round must be played off by Saturday, June 4th.
2nd ,, ,, ,, ,, 11th.
3rd ,, ,, ,, ,, 18th.

The date of the Final will be announced later. The Committee reserve for themselves the right of scratching the names of those competitors whose matches are not played off by the dates mentioned. All matches except final best of three sets. Competitors requested to enter scores with winners.

Appointments.

CIVIL.

SMITH, G. PENDER, L.S.A., has been appointed Medical Officer of Health to the Wivenhoe Urban District Council.

MILITARY.

BRIGADE-SURGEON-LIEUT.-COLONEL W. E. SAUNDERS, A.M.S., has been appointed Principal Medical Officer at the Base Khyber Force.

BRIGADE-SURGEON.LIEUT.-COLONEL F. W. Trevor, A.M.S., has taken charge of the current duties of Principal Medical Officer, Sind District, as an additional duty.

HENRY JAMES HOLMAN, gentleman, is appointed Surgeon-Lieutenant, 1st Cinque Ports Rifles.

1st Vol. Batt., the Prince Albert's (Somersetshire Lt. In.) —CAPTAIN G. S. POLLARD to be Major.

Births.

ALSTON.—On May 20th, at Wheathampstead, Herts, the wife of W. Evelyn Alston, B.A., M.B., B.C., of a daughter.

CLOWES.—On May 19th, at Coggeshall, Essex, the wife of W. H. Clowes, M.R.C.S., L.R.C.P., of a daughter.

PETERS.—On May 17th, at Cadogan Place, S.W., the wife of Edwin Arthur Peters, B.A., M.B., B.C., of a daughter.

ED.—H. L. E.

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Calendar of Coming Events.

June.

Sat. 18.—Mr. Lucas's take-in; Drs., L. Wilkin and F. O. Stœhr; Cl., E. G. Goddard.
G.H.C.C., I., Past v. Present, home.
II., Granville (Lee), away.
Hos.-Scho.C.C., All Saints, away.
G.H.L.T.C., Connaught (3.30 p.m.), away.

Tues. 21.—12 noon, Mr. Rowell's Demonstration on Anæsthetics.

Wed. 22.—Mr. Golding-Bird's take in; Drs. J. H. Roberts and F. E. Hutchinson; Cl., P. W. Moore.
1.30 p.m., Clinical lecture by Dr. Washbourn.

Thur. 23.—G.H.C.U., Address by A. Carless, Esq., M.S.

Fri. 24.—1.30 p.m., Clinical lecture by Mr. Lane.
G.H.C.C., I., Reigate Priory, away.
II., Old Dunstonians, home.
G.H.L.T.C., Dr. Goodall's team, home.
Hos.-Scho.C.C., Alexandra Hall, home.

Wed. 29.—Mr. Howse's take in; Drs., H. Durbridge and C. B. Sells; Cl., H. Cardin.
1.30 p.m., Clinical lecture by Dr. Washbourn.
G.H.C.C., II., London Hospital, home.
G.H.L.T.C., The Staff, home.

Thur. 30.—G.H.L.T.C., Kent L.T.C., away.
G.H.C.U., Address by Rev. A. W. Evans, "The Holy Spirit."
Second Conjoint Examination begins.

July.

Fri. 1—1.30 p.m., Clinical lecture by Mr. Lane.
October Appointment List opens.

Sat. 2.—G.H.C.C., I., Hornsey, home.
G.H.L.T.C., Weighton, away.
Hos.-Scho.C.C., St. Mary's, away.

Guy's Hospital Gazette,

JUNE 18, 1898.

Raynaud's Disease in a Phthisical Dement.

DR. HALE WHITE pointed out some years ago in a clinical lecture that Raynaud's disease occurs in asylums, and that three-quarters of the patients are women.

Sarah H., a single woman æt. 40, was admitted in 1894 from Essex County Asylum. Certificates on admission state that she had been an imbecile for two years, and had also a delusion that she would find a large fortune down a water-closet, and was always putting both hands down to pull it up. Notes on admission state she is thin and feeble, but her reflexes are normal and gait good. She has a slight beard and moustache. Cardiac sounds faint; no murmur. Pulse small, feeble; vessels small, but not diseased. Chest narrow and flat, respiration feeble. Tongue tremulous, jerky protrusion. Irides blue, pupils equal. Hands cold and covered with "chilblains" (?) These "chilblains," so called, were the first warning of what followed. November, 1895, a note states, circulation feeble, extremities blue in spite of hot-water bottles and stimulating medicines.

Mentally, she was very demented throughout 1895 and 1896.

In January, 1897, an abscess formed in right lumbar region, which was opened, and one and a half pint of curdy pus removed. This had practically healed in March, 1897.

April 7th, 1897, an abscess developed in right axilla, followed on April 25th by another small abscess in left axilla, both of which were opened, and discharged curdy pus until June, 1897, when they were reported as discharging very little, and subsequently healed completely.

January 27th, 1898. Mentally, patient is very demented, with auditory hallucinations of "voices." Physically, thin, weak and feeble; kept on sofa in a warm room. Face has slight hectic tinge on cheeks and lips; lips full, protruding; beard and moustache black, well-developed. Cardiac sounds faint, feeble; no murmur. Radial and posterior tibial pulses difficult to feel; temporal pulse fair, 88 per minute. Arteries small, not hard. Fingers and toes of a peculiar, livid, greyish-black hue. Feet and hands cold. Toes less livid than fingers. Nose cold. An unhealthy, gangrenous patch near the anus has broken down, forming an intractable, punched-out ulcer, with bad smelling discharge, and is being treated with Lotio Acid Carbol. 1.40, and Ung. Acid Boric.

March 22nd, 1898. In spite of care and warmth the arterial spasm increased throughout February and March. Patient was sent to bed to-day, and her condition was as follows:—

Right hand, dark-coloured, bluish-black appearance, turning white on pressure. Cold. Ulcers on index and ring fingers.

Left hand also shows local asphyxia, but no ulcers.

Right foot. Local asphyxia, with ulcer on terminal phalanx, great toe, also ulcer on third toe, and four violet patches, indicating old healed ulcers, on the sole.

Left foot. Local asphyxia, with punched-out unhealty ulcer at root of great toe. All the ulcers mentioned commenced as vesicles or blebs, and after these burst they present a punched-out appearance, with greenish edges and yellowish floor.

Respiratory system. Ordinary signs of phthisis in right lung, and ordinary symptoms, viz., cough, hectic fever, with raised evening temperature, night sweats, but very little expectoration, and respiration regular, 24 per minute as a rule. Pulse varies between 88 and 100. Temperatures at night sometimes normal, sometimes 100° or 101°.

Patient has been taking cod liver oil for some time. This was stopped to-day, as there was some looseness of the bowels, and following given:—℞ Amm. Carb. ʒi., Tr. Nucis Vom. ʒi., Spt. Chlorformi ʒi., Aq. Menth. Pip. ʒvi., Aqua ad ʒviii: fiat mist, sumat coch. mag. ter in die. Also Pulv. Acid Boric, grs. x., Salol, grs. ij.: fiat pulv., i night and morning. Also Iron Jelloids, one twice a day (Pil. Blaud, grs. v. in each). Ulcers to be bathed with Sol. Acid Carbol., 1—40, and dressed with Ung. Acid Boric on lint. Feet and hands to be bandaged up with an abundant covering of cotton wool. Hot bottles night and day.

Diet. Milk, eggs, mincemeat and fish.

Under this medicinal and general treatment patient's vascular system has steadily increased.

On April 23rd all the necrotic ulcers had healed up except the old ulcer near the anus, where sepsis doubtless keeps it unhealed. Hands and feet warmer, colour white, violet patches show localities of former ulcers; nails thickened, and skin of sole hypertrophied, scaly and wrinkled. Patient enjoys her food, and sits up in ward every day.

Although she must ultimately sink from her pulmonary trouble, as regards Raynaud's disease she shows remarkable present improvement, or, we may say, practical cure at present time. May 20th.—Hands and feet fairly normal in appearance and temperature; enjoys her food; evening temperature normal; cough very slight.

EDWARD C. B. IBOTSON.

Grove Hall, London.

Papers by Guy's Men.

An Improvement in Colotomy.—*Lancet*, June 11th. Also Remarks on the Surgical Treatment of Pyloric Obstruction, with an account of Twenty Cases, and of a new way of performing Gastro-Enterostomy. By F. T. Paul, F.R.C.S. (illustrated). *British Medical Journal*, June 4th.

Two Cases Treated with Antistreptococcus Serum. By W. A. Carden, M.R.C.S., L.R.C.P. Lond., and A. Gregor, M.B., C.M. Aberd.—*Ibid.*

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Cases under Dr. Pye-Smith.

Philip	21.	Left pleurisy. Pericardial effusion. Consolidation left apex.
	24.	Left pleuritic effusion. Morbus cordis.
	27.	Phthisis. Laryngitis.
	33.	Carcinoma ventriculi.
	34.	Chronic pleuritic effusion.
	40.	Old empyema. Pyrexia. ? Enteric.
Mary	25.	Tabes mesenterica.
	28.	Mitral stenosis and regurgitation Double pleuritic effusion.
	33.	Mitral stenosis and regurgitation. Tricuspid regurgitation.
	35.	Moveable kidney.

Cases under Dr. Taylor.

Stephen	1.	Mitral stenosis.
	4.	Phthisis. Tubercular laryngitis.
	6.	Chorea.
	7.	Gout.
	9.	Cirrhosis. Nephritis.
	10.	Sciatica.
	15.	Locomotor ataxy.
	16.	Acute nephritis.
	19.	Progressive muscular atrophy.
	20.	Diabetes.
Mary	42.	Mitral stenosis and regurgitation.
	43.	Rheumatism.
	44.	Cardiac and renal disease.
	46.	? Tubercular peritonitis.
	47.	Aortic regurgitation.
	48.	Phthisis.

Cases under Dr. Goodhart.

Philip	1.	Phthisis. Jacksonian epilepsy. Nephritis.
	2.	Phthisis. Cirrhosis of liver.
	4.	Acute nephritis.
	9.	Prolonged pyrexia. ? Tuberculous peritonitis.
	13.	Chronic tubal nephritis.
	14.	Broncho-pneumonia.
	15.	Sciatica.
	17.	Psoriasis.
	20.	Compression myelitis.
Mary	15.	Hæmophilia in a girl.
	16.	Infective endocarditis.
	17.	Chronic eczema.
	19.	Post rheumatic neurosis.
	24.	Gastric ulcer.
Cot	54.	Recurrent broncho pneumonia. ? Tuberculous.

CASES UNDER DR. HALE WHITE.

MARY 2. Chlorosis.
7. Cerebral tumour.
12. Gastric ulcer.
STEPHEN 23. Abdominal aneurysm.
26. Pneumonia.
27. Phthisis.
31. Gastric crises.
32. Hæmaturia.
35. Cirrhosis and alcoholic neuritis.

In the Surgical Wards.

CASES UNDER MR. HOWSE.

NAAMAN 3. Pyrexia. Old lumbar abscess. Sinuses.
4. Perityphlitic abscess. Incised.
12. Tuberculous hip.
13. Synovitis of both knees. Congenital syphilis.
14. Nævus of hand. Amputation.
15. Infantile paralysis.
16. Stricture.
18. Cyst of epididymis. Excised.
19. Epithelioma linguæ. Excised.
CHARITY 6. Mastoid abscess. Antrectomy.
7. Labial cyst. Excised.
10. Separated epiphysis of femur.
13. Carcinoma mammæ. Excised.
15. Fractured patella.
Cot C. Cleft palate. Soft plastic operation.
17. *Bronchocele.*
19. Re-amputation for tuberculous ankle.
20. Carcinoma mammæ.
Cot E. Retention. Adherent prepuce.
ASTLEY COOPER 18. Fractured os calcis.

CASES UNDER MR. DAVIES-COLLEY.

LUKE 1. Inguinal hernia. Radical cure.
3. Tuberculous bursitis over hip. Scraped.
4. ? Tuberculous kidney.
5. Cleft palate. Plastic operation.
9. Abdominal tumour. ? Gangrene of abdominal wall.
10. Chronic hydrocele. Radical cure.
12. Ulcer of face. ? Rodent. Excised.
19. Tuberculous kidney. Nephrectomy.
LYDIA 1. Parotid tumour.
3. Submaxillary tumour. Excised. ? Chondrifying sarcoma of submaxillary gland.
4. Ruptured eyeball. Enucleation.
7. Contraction of wrist. Exploratory operation. ? Muscular in origin.
8. *Cleft palate.* Plastic operation.
17. Bronchocele. Excision of right lobe.
Cot B. Fractured femur. Vertical extension.
19, 24. ? Epithelioma. ? Gumma of forearm.
LYDIA 20. Scalded fauces.
21. Carcinoma mammæ and glands. Excised.
23. Tuberculous shoulder.
CORNELIUS 4. Fractured femur. Hodgen.
6. Abdominal injury. Hæmaturia.
9. Separated lower epiphysis of tibia.
10. Subastragaloid dislocation and fractured fibula.

CASES UNDER MR. LUCAS.

CHARITY 3. Tuberculous knee. Excised.
LYDIA 10. Gangrene of foot. Diabetic. Amputation through thigh.
11. ? Moveable kidney.
14. Right iliac abscess. Incised and scraped.
15. Tuberculous knee. Excised.
JOB 1. Psoas abscess. Incised and drained.
7. Tuberculous tenosynovitis of wrist. Incised.
8. *Tuberculous shoulder.* Excised.
9. Tuberculous tenosynovitis of wrist. Bilateral.
18. Tuberculous ankle and wrist. Previous erasion of wrist.
20. Epithelioma of tongue and jaw. Recurrence. Excision of parts affected.
24. Suppurating hæmatoma of thigh. Drained.
ASTLEY COOPER 15. Acute synovitis of knee. ? Cause.
27. Injury to eye. Enucleation.

CASES UNDER MR. GOLDING-BIRD.

MARTHA 4. Enlarged pre-auricular gland. Excised
5. Ankylosis of knee.
6. Rodent ulcer of eyebrow.
8. Sacro iliac disease with sinuses.
9. Tuberculous knee. Excised.
16. Membranous colitis. Right lumbar colotomy.
17. Tumour of face. ? Carcinoma of mucous glands in skin.
18. Tuberculous tarsus.
20. Fractured patella. Wired.
21. Tuberculous hip. Scraped.
Cot D. Epiphysitis of tibia. ? Tuberculous.
LAZARUS 4. Old erasion of knee. Tuberculous. Scraped.
5. Epitheliomatous glands in axilla. Secondary to growth on thumb.
7. Tuberculous shoulder.
12. Pain and hæmaturia.
17. Mastoid disease. Antrectomy.
18. Strangulated inguinal hernia. Kelotomy.
19. *Strangulated inguinal hernia. Kelotomy.*
20. Testicular tumour. ? Hæmatocele. ? Gummatous.
21. Exostosis of femur. Removed.
CORNELIUS 15. Fractured patella. Wired.

CASES UNDER MR. JACOBSON.

NAAMAN	21.	Syphilitic periphimosis. Circumcision.
DORCAS	1.	Recurrent cancer of breast.
	3.	Axillary tumour.
SAMARITAN	7.	Carbuncle.

CASE UNDER MR. SYMONDS.

LUKE	16.	Hydatid disease. Cyst of spermatic cord. Excised with testis.
MARTHA	13.	Sarcoma of mandible.
JOB	11.	Tuberculous glands in groin. Excised.
PATIENCE	2.	Suppurative arthritis of knee.

CASES UNDER MR. LANE.

DORCAS	4.	Moveable kidney. Nephrorraphy.
	5.	Recurrent appendicitis. Appendicectomy.
	COT B.	Cleft palate and hare-lip. Double.
JOB	12.	Recurrent appendicitis. Appendicectomy.
	13.	Ununited fracture of tibia. Screwed.
	14.	Cleft palate and hare-lip.
	15.	Calculous pyonephrosis. Old nephrolithotomy. Sinus. Nephrectomy.

CASES UNDER MR. DUNN.

MARTHA	10.	Femoral hernia. Radical cure.
	COT C.	Tuberculous ulcers.
	11.	Rectal prolapse.
	12.	Recurrent pigmentation after excision of mole. Patch excised.
LAZARUS	2.	Recurrent umbilical hernia. Radical cure.

CASES UNDER MR. DAVIES-COLLEY.

T. C., æt. 14, was admitted on April 13th for injury to the head, produced by falling out of a cart. On admission patient was comatose, with rapid and irregular pulse. His skin was warm and his breathing nonstertorous and regular. Both pupils reacted to light. There was paralysis of the left arm, as shown by inability to move it when patient's head was examined, causing pain, although the other limbs were moved. The tissues over the right temporal region were bruised, and there was a black eye on the left side, with bruising and swelling of that side of the face. Patient vomited, and passed his urine under him. Temperature 99.6°. During the evening paralysis increased, so that the left leg did not move so well as the right. An ice-bag was applied to the head.

April 14th.—Both pupils widely dilated, the right acting to light, but the left fixed and kept closed. There was loss of expression on the left side of the face, partly owing to the swelling of the bruise, but also owing to paralysis of that side. If the supra-orbital nerves were pressed upon, the right side of the face was screwed up, but the left was not moved. The left labionasal fold was obliterated. Left arm somewhat rigid in addition to the paralysis. Incontinence of urine and fæces.

April 15th.—Patient restless. Pulse 72, irregular. As there was no improvement the skull was trephined over that part of the Rolandic area which corresponds to the left arm. The dura mater was pulsating, and bulged slightly into the wound. This was incised and a small quantity of clear fluid came away. There was a fissure of the inner table, running across the dise of bone, which was replaced. After incision of the dura mater patient's pulse improved, becoming stronger and more regular. While the wound was being dressed patient moved his left arm slightly, and the left pupil was less dilated than before the operation. On the following day there was still slight movement of the left arm, and the pupil reacted sluggishly to light. Patient resented interference and seemed irritable. The improvement soon gave place to a condition much the same as before the operation. Patient had to be fed with a nasal tube, as he would not take nourishment well.

On the 18th the wound was opened up again. Very little clear fluid escaped when the dura mater was incised. Patient was very restless after the operation, with rapid pulse. 6 p.m. I.M.H. gr. $\frac{1}{3}$.

A few days after this patient began to improve. On the 26th there was less rigidity of the arm, and patient showed signs of returning consciousness. He had control of bladder and rectum, and was said to have recognised his parents. On ophthalmoscopic examination the left optic disc was found to be hyperæmic and the edges were indistinct. There was no impairment of vision. On the 30th patient was quite conscious. The paralysis was less marked, but there was still ptosis of the left eye-lid, and the eye was fixed by the external rectus. On May 3rd the pupil reacted to light. Patient was discharged on the 16th. The left arm was gradually regaining its functions. There was still partial paralysis of the third nerve, as shown by ptosis, but the pupil reacted, and the eye could be moved inwards. The paralysis of the face and left leg were less marked. The wound healed by primary union.

Mr. Davies-Colley said that there appeared to be two separate injuries: (1) fracture of the vault, causing bruising and subsequent inflammation of the brain cortex at the lower part of the right fissure of Rolands, and (2) fracture of the base at the back of the left orbit, which had produced some paralysis of the third cranial nerve of that side.

M. M., æt. 21, admitted April 23rd for swelling in neck. Patient has been married for two years and has had three miscarriages, but no full term children. She has always suffered from sore-throat. An abscess was opened in the neck, on the left side, when she was a baby.

She first noticed the present swelling seven or eight months ago, on the left side of the neck, just after becoming pregnant. It has been gradually increasing in size. She had no pain in it till two days before admission. There has been no dysphagia or dyspnœa. A swelling has appeared under the tongue quite recently.

On admission.—There was a large bilateral cystic swelling in the submaxillary region of the neck. It was larger on the left than on the right. The skin was stretched over it, being smooth and shiny, with fairly prominent veins. The swelling was firm and elastic and was adherent to the deep parts. Fluctuation could be obtained from one side to the other, and also between the external tumour and a swelling under the tongue, which was situated in the middle line, pushing up the tongue. This swelling was firm and fluctuating, and

had an overhanging margin. The mucous membrane over it was normal.

On April 26th the tumour was removed. During the administration of the anæsthetic there was some difficulty in breathing, and patient became very cyanosed, but the difficulty was removed when chloroform was substituted for A.C.E. mixture.

A large quantity of viscid yellowish fluid came away from the mouth. An incision was made vertically in the middle line from a point one inch below the chin to the hyoid bone. From the middle of the first incision another was made at right angles to it on the left side for about three inches. The skin was then reflected off the tumour, and the cyst wall dissected away from adjacent parts. The cyst was then opened, letting out about half a pint of viscid yellowish fluid, mixed with blood. As much of the cyst wall as possible was dissected away, but owing to its extreme softness (it tore away whenever laid hold of with forceps), and its penetration between the deep structures of the neck, the whole could not be removed. The portion left was touched with pure carbolic acid. A similar dissection was carried out on the right side of the neck, and the tumour was found to be continuous across the middle line. Drainage tubes were temporarily inserted, and the wound closed. The swelling under the tongue disappeared after the operation. The wound healed well and patient was discharged on May 9th.

The diagnosis made was a bilateral hygroma. On microscopic examination the wall of the cyst showed only fibrous tissues, there being no living membrane.

H. L.

Case for Diagnosis.

L. C., a servant, æt. 27. Miriam 23, under care of Dr. Washbourn. Patient was admitted on June 13th, 1898, for loss of power in arms and legs. Temperature 99°.

Family history.—Father and mother living and healthy. Four brothers and two sisters living and healthy.

Personal medical history.—Measles, whooping cough and scarlet fever when a child. Has suffered from "indigestion" since fifteen years of age. Last year coughed up a small quantity of blood.

History of present illness.—On June 3rd patient was taken ill with diarrhœa and vomiting. She went to bed, and has been there since. The diarrhœa and vomiting ceased on June 7th. Vomit was of a greenish colour; motions brown and watery. On the 7th she complained of numbness in the feet, and it was found that she could not move them. Next day the legs and arms felt numbed, and she could not move them. She continued in this state till the 9th, when she was sick again. Vomit greenish. Bowels last opened on the 9th; motion well formed. She got worse, and was delirious for three nights before admission.

On admission.—Small thin woman; in a semi-conscious condition. Answers questions at times clearly, at others talks incoherently.

Nervous system.—Has complete loss of power in legs and arms, but slight movement of toes. Both feet and hands in the "dropped" position. Abdominal muscles paralysed. Sensation is normal except over abdomen, where it is lost. Deep reflexes lost. Slight plantar reflex present. Abdominal reflexes lost. There is no hyperæsthetic area. Considerable wasting of muscles of extremities. Muscles flabby and soft. There is a bed-sore between the scapulæ, quite recent and superficial. Both urine and fæces passed unconsciously. Hearing and taste normal. No ocular paralysis. Right pupil is smaller than left. There is some conjunctivitis of left eye, with purulent discharge. Cornea steamy and iris discoloured. Pupils react and dilate equally.

Circulatory system.—Pulse 100, regular and soft; heart normal.

Respiratory system.—Breathing entirely with chest; intercostals unaffected. Diaphragm paralysed. Respirations 24, short and jerky, but regular. No dyspnœa. Chest normal.

Alimentary system.—Lips dry, cracked, and covered with sordes. Tongue furred brown. Gums red and spongy. Pharynx and fauces normal. Breath offensive. Numerous small ulcers on inner surface of lips.

Abdomen retracted. Upper part sucked in during inspiration. Neither liver nor spleen felt. Dulness normal. Abdomen resonant all over.

June 14th. Patient did not sleep at all during the night, and was quite delirious. In the morning she is much worse. Temperature 101·4°; pulse small, 120. Urine and fæces passed under her. Takes food very badly, and has to be fed with spoon. No paralysis of palate. Sensation quite lost over limbs and abdomen. Cannot feel when pinched or pricked. Breathing worse laboured and irregular. At 6 p.m. she became much worse; was cyanosed. Pulse 130, running. Breathing short and shallow. Oxygen was given, and she got a bit better. This was continued at short intervals till 9 p.m. She was then quite conscious, and recognized her friends. At 9.30 she was much worse. Face blue; pulse 140. She died at about 10 p.m.

(*See key on last page.*)

Notes on The British Pharmacopœia, 1898.

ALTERATION IN STRENGTHS OF PREPARATIONS.

There are in the British Pharmacopœia, 1898, very nearly 100 alterations in the strengths of the preparations of the 1885 Pharmacopœia, and the additions of 1890.

Forty tinctures have had their strengths altered. These have been so adjusted, that tinctures of potent drugs—Aconiti, Belladonnæ, Chloroformi et Morphinæ Cannab. Ind., Cantharidis, Capsici, Colchici Seminum, Digitalis, Gelsemii, Lobelia Æther, Nucis Vomicæ, Opii, Podophylli, Scillæ, Stramonii, Stropanthus—have a dose of 5 to 15 minims, and the others ½ to 1 fl. dr. The strength of the Spirit Cajuputi, Cinnamon, Juniper, Lavandulæ, Menth. Pip., Myristicæ and Rosmarini is five times that of the 1885 Pharmacopœia, and the dose 5 to 20 minims.

Twenty-two ointments have been altered. The most notable changes are of Sulphur and Staphisagria reduced to half strength, and Belladonna made double. The Ung. Zinc. Oleat. is much stronger.

The following list contains the chief alterations in potency of preparations in the 1898 British Pharmacopœia compared with that of 1885.

STRONGER.

Liquor Epispasticus	(twice).
Pil. Phosphori	(nearly twice).
Tinct. Belladonnæ	(twice).
Tinct. Chloroform et Morph. Co.	(four times in Morphine).
Tinct. Colchici Seminum ...	(nearly twice).
Tinct. Lobeliæ Ætherea ...	(nearly twice).
Tinct. Nucis Vomicæ	(twice).
Tinct. Podophylli	(twice).
Tinct. Quassiæ	(three-times).

WEAKER.

Aq. Chloroformi	(one-half).
Ext. Belladon. Alcoholic ...	(one-third).
Ext. Nucis Vomicæ	(two-thirds).
Ext. Opii Liquidum	(three-quarters).
Ext. Physostigmatis	(one-quarter).
Inj. Apomorph. Hypoderm. ...	(one-half).
Inj. Morphinæ Hypoderm. ...	(one-half).
Supposit. Morphinæ	(one-half).
Tinct. Aconiti	(two-fifths).
Tinct. Strophanthi	(one-half).

H. COLLIER

Impressions of the Mouth.

A Paper read before the Dental Society by Mr. A. A. BARTHOLOMEW, which was awarded the Society's Prize.

MR. PRESIDENT AND GENTLEMEN,—Nine-tenths of the available professional ability of the successful dentist consists in his manipulative ability, one-tenth in his theoretical knowledge. This statement appeared in a recent lay paper in a discussion of the question of technical education, and without criticising the proportion laid down by the writer, we must all admit that an acquaintance with, nay more, a thorough, detailed, and familiar knowledge of a considerable number of manipulative processes is essential to our successful practice.

Of these processes, that of taking impressions of the mouth is one of the first to which we are introduced in the operating room. It is an operation worthy of careful study, on account of the frequency of its occurrence; interesting on account of the opposite opinions expressed upon important details of its accomplishment; and it is important practically both to operator and patient.

A good impression is one from which subsequent work can produce a *good fit*. Now, a good fit is essential for the comfort of the patient and for the utility of the appliance, and consequently a good impression is of very great consequence, and the busiest man is prodigal of time and pains to secure it.

Gentlemen, there are three factors, three combining, inter-dependent agents, in the production of an impression. They are—

The Patient.
The Operator.
The Impression Media.

In the patient we have to consider the general condition of the individual and the condition of the mouth.

In the operator, his needs and his skill.

In the media, the materials and their mode of employment.

I wish to direct your careful attention to these factors collectively first of all, as I think they are too frequently lost sight of, or only vaguely understood. Nothing is commoner than friendly discussion upon proper material for a particular kind of mouth. Very often, if the other factors, as the needs of the operator, the skill of the operator, the general state of the patient, etc., were definitely and clearly expressed, then little diversity of opinion could obtain as to the material to be employed.

Again, let me point out that two of these factors are human and variable. Patients differ widely in their tolerance of discomfort, and operators not less in their aptitude, as each of us must acquire aptitude in the method of our choice, and as methods and materials differ, so shall we acquire different facilities. Now, every writer on impressions must picture both a patient and an operator, and I believe it is from the differences in the mental picture thus formed that result the widely-different views authors have expressed.

Again, it is well to regard a good impression as the product, the outcome, the result of these factors; just as the number 100, say, is the product of 10 by 2 by 5. In the case of the number, if one factor be lessened, then the remaining factors, or one of them, at any rate, must be increased to obtain the same product. Similarly in our case, with a very troublesome patient, with a difficult mouth, with an imperfect material or method, a good impression is only to be obtained by greatly increased skill on the part of the operator, and often, indeed, does the expert compensate by his skill for drawbacks which would cause a novice to fail. And, *vice versâ*, a comparative novice, by a judicious use of methods, and by proper general handling of his patient, can compensate in some measure for his lack of experience.

THE PATIENT.

Not only my time, but my limited experience forbid my dealing with all the points these factors raise, but I will make the divisions I have made serve as headings to bring before you some points I have noted.

As regards the general condition of the patient, we may meet with fright, meddlesome interference, and intolerance of discomfort. Under these circumstances a blundering handling of the patient may make an impression at that sitting a simple impossibility. But we must make the best of our difficult patient by tact. In the case of fright, tact should take the form of gentle handling, touching, to establish the confidence of the patient; examine then the mouth, wipe over the teeth, and so on, until you feel your way to the performance of the impression proper.

Interference is best treated by granting to the patient a full knowledge of the process, and then reminding them that they know how essential to the success of the impression is a perfect passive obedience during the actual impression.

Intolerance of pain should cause us to select the least troublesome method calculated to be successful, and then kindly but unflinchingly to carry it out.

The patient's local condition, the variety of mouth, is a large subject. Books talk of the complete and the partial impression; they mean the impression without and with undercuts respectively. The conservation room is the place to discuss the little devices which are so often called for in this relation.

THE OPERATOR,

We now come to the operator. In taking an impression the operator should keep in view the object, the purpose or needs of his impression. Not only must he secure a good impression of what he wants, but further he should often leave alone what he does not require, thus frequently facilitating his operation. For instance, in replacing lower bicuspids only, he does not want an impression of 7 and 8 nor of the points of the incisors, and if his tray be arranged not to take these parts, he is able to move readily to get an accurate impression of what he does require.

Then as to the skill of the operator. This is indeed the important point. Ottolengin wisely remarks, when speaking of gold pluggers: "It is not the plugger makes the good filling but the man at the other end." And with

equal truth, I think, it is not the material which insures the good impression, but the skill with which it is employed. How is this skill acquired? First, by realising the necessity of good fit and being determined to get it. This leads necessarily to a careful study of cases, methods, and materials, and with practice at the chair side constitutes skill.

MEDIA.

Passing now to impression media, the points I wish to bring before you are some of the broad essential rules, or special difficulties in their use. These are intimately united, by the relation of cause and effect, with the physical and chemico-physical properties of the various media.

COMPOSITION.

The physical properties of composition to which I shall refer are its softening, hardening and its elasticity. Composition should be softened thoroughly, uniformly and by moist heat of hot water, and not by a spirit lamp. If the flame be used, over-heating of the surface of the composition is sure to occur, and this over-heating developes a stickiness which is one cause of dragging of the material on its removal from the mouth.

Composition hardens by the loss of heat. The heat is dissipated by radiation from the surface, and, consequently, a thin piece of composition which exposes a large surface compared with its bulk will cool and harden more rapidly than a thick more or less spherical mass which explores little surface comparatively. This fact underlies one of the most important rules connected with the use of composition. Composition should be applied to the mouth in a layer of approximately equal thickness. Thus alone can we secure equal hardenings of our material, and without equal hardenings it is impossible to withdraw the tray at the moment when the whole of it is at the proper temperature, hardness and elasticity for withdrawal. I consider the point of equal thickness of great moment. It often involves the use of a special tray, but it raises composition from a second-rate to a first-rate material.

The elasticity of composition is small, imperfect, and only present at a certain temperature. Imperfect as is this property, the elasticity of composition is the *one* quality which distinguishes it from wax and plaster, and which has found for it so many adherents. It is necessary for the operator to be well acquainted with the particular kind of composition he uses, for this knowledge determines the moment of removal of the tray, which is *the fine delicate point* in the use of composition. The clock is not a certain guide to this point, perhaps the best way is to determine when to remove by the condition of the material at the edge of the tray.

The elasticity of composition enables the operator to take undercuts—to a certain extent. But in cases of extensive undercut covering up with composition, wax or gutta percha becomes necessary. The use of these cores not only enables one to secure an otherwise impossible impression, but it allows the general impression to be easily withdrawn, we do not over tax the elasticity of our material, and to meet emergencies we have still a balance in our favour.

Composition is very easily abused: and then bad results. But well understood, used in a special tray, aided by cores when necessary, composition will take any case, is not trying to the patient, does not overtax the operator, and gives results which are very difficult to beat.

GUTTA PERCHA.

Gutta percha is composition, only more so. It requires more heat to soften, more pressure to adapt to the mouth, more time in the mouth, more unpleasant to patient, is more elastic and takes more of an undercut. Indeed, its elasticity sometimes produces a bad result by causing shortening of the teeth after removal from the mouth.

If we compare the hardening of gutta percha with that of stent. Composition is plastic, for a time elastic and then hard. Gutta percha is elastic from beginning to end, and the time in the mouth is only what is hoped is sufficient for the molecules to get used to a new position.

In use it is the most troublesome of all materials to the patient. Is difficult to keep of good quality. Still it finds a useful place in the taking of some negatives, and is the material to use if we don't wish to core up a bad undercut and won't use plaster.

PLASTER.

In the words of our worthy President, "the impression material *par excellence* is plaster." It is interesting to note how extensively plaster is recommended by books, and how limited is its adoption in practice. I have even doubted if ever plaster were extensively and almost exclusively used by any good dentist in good, busy practice; and I have put that question several times to reliable men. I am assured there are such men. But still plaster must surely have serious drawbacks. What are the disadvantages of plaster? Neither in books, nor from teachers, nor from fellow students have I ever discovered more than *one* disadvantage in plaster, but that one is a great one. It is its difficulty. Yes, the difficulty of using plaster is a sound and valuable argument, but it is necessarily of variable force for different men, and it is not a very noble argument.

On the other hand, the advantages of plaster can be put almost as briefly. Plaster is a material of truth, and the truth of plaster is derived from the two facts, that it is applied without displacing the tissues and is withdrawn without its own distortion. Of no other material can this be said, and herein lies the supremacy of plaster.

To my mind there is a fascination and beauty in this truth of plaster. With all its deficiencies and general dilapidation, a plaster impression seems to say, "There is no prevarication, no make-up about me. I've been there. I have recorded what is there, and unless literally crushed to silence, I speak the truth." A fine gold or an artistic crown is not more beautiful, does not give greater satisfaction to the operator than a lovely plaster impression. Combined with its truthful breadth

you have such delicate, faithful tracery. I have long thought that plaster men must have a sporting love for plaster, and find a sportsman's pleasure in taking a plaster impression.

Of plaster I am going to speak only of what I consider the difficulty of difficulties, and that is, its removal from the mouth by fracture. To learn this little operation, previous general considerations, a meditated plan for the particular case, and patient practice are necessary.

Set plaster is a homogeneous material, without grain, without inherent tendency to split or fracture in any definite line; and yet few things are more certain than the line of fracture of a piece of plaster. For plaster invariably fractures in a line which is the resultant of line of stress and line of less resistance. These two forces are brought to bear in every fracture of plaster.

Let us consider them separately. If we take a rod of plaster of equal substance and form throughout, and holding both ends, press down upon a fulcrum until fracture occurs, the fracture will infallibly occur opposite this fulcrum, because the pressure of the fulcrum is equal, but opposite to the two other pressures added together. There is the point of greatest stress; resistance has been eliminated by its equal distribution along the even rod.

Now, if we imagine a collar of plaster weakened by deep grooves at certain points, and then equally pressed out in all directions, where will the plaster break? In the line of the grooves, in the line of least resistance. Stress and resistance, then, are the two opposing forces which together determine the exact line of fracture of plaster.

In applying these principles to the mouth, we find that our means of determining the *line of stress* are very limited, and if we try to remove an impression on this principle, we shall end in failure, or at best have a most ridiculous puzzle.

In applying the second principle to plaster in the mouth we are much more fortunate. We can easily make lines of less resistance in our impression. How? First, by scraping or cutting grooves in the plaster with a sharp point or excavator; secondly, by casting our tray with ridges in it which will be left as grooves; and, thirdly, in a way which is well worthy of note, by increasing generally the thickness of our impression whereby the amount of relative less resistance can be enormously increased. Where are these lines of less resistance to be placed in our impression? As a rule there will be one horse-shoe line corresponding with the line of the teeth and other lines at right angles to it.

As a familiar example of the use of these grooves, if I were to take a plain cake of chocolate about eight inches square and try to divide it into sixteen equal parts, I should have some difficulty; but if the cake were cast with lines, I could easily manage it.

Having our plaster thus arranged in the mouth, where ought we to begin breaking out? Begin at the segment with fewest attachments. Apply an edge in the grooves and twist it, when the segments will break away into the premeditated segments.

Going now a step further back, I will say that it is necessary that the plaster tray should be accurately applied to the mouth, otherwise the grooves will not be truly placed. Hence, first learn how the tray should go by applying empty to patient's mouth and noting its position. And going further back still, I have a word to say about making *special trays*.

The special tray for composition is designed merely to apply the material in an approximately equal layer. The plaster tray has quite a different object: it is designed to apply the material in such a way as to facilitate its removal. A good tray

Holds enough plaster to have a thick layer.
Is rigid.
Possesses no undercuts.
May be thoughtfully ridged to form grooves of lesser resistance in the impression material.

A special tray can be quickly made from hardbake or stent, and will do for some plasters as edentulous cases, but, usually, the stronger metal tray is advisable. Of these the lightest, handiest and handsomest is the swayed tray of gilding metal. It takes a good mechanic half-a-day to make, and hence cannot be extensively used in ordinary practice. Further, it is expensive in material, both first cost and because the material cannot be used over again.

The usual method here is to pour a pewter tray in a plaster mould.

A very great improvement on this, and a method giving a lighter tray, and one made in one-quarter the time, is Mr. Parfitt's method of the sand-moulded tray of pure tin. I know that a tray can be, and often is, made throughout in half-an-hour by this method, which, I judge, is not more than one-fourth of the time required to wax-up, model, make moulds, pour and finish the ordinary pewter, plaster-mould article.

This is about what Mr. Parfitt told me, and I have frequently done it, as follows:—Mr. Parfitt warms a sheet of wax, and lets it simply fall over the model without any previous layer of wax added. With a warm knife he cuts out the shape of his tray, leaving a piece projecting in front to form a handle. He re-warms this wax, and moulds with his fingers to a sufficient fulness, and the tray is ready for the sand bench. Here he first French chalks the tray. He presses the tray loosely into the lower half of the flask; smooths the surface and dusts over with French chalk. He puts on the second part of box, and fills up with sand and rams tight. He turns box over and rams tight part 1. He opens box, removes wax, and pours in pure tin.

In conclusion, gentlemen, if the simplicity of my aim, my desire of telling you something of practical utility, has compelled me to write a dull paper, that is no reason why our discussion upon it should not be lively, and I trust some of the points will raise discussion or question. I offer you my apologies for the many deficiencies of this paper, of many of which I am very conscious. My paper has now been read, and I am thankful to you Mr. President and Gentlemen for your courteous and flattering attention.

Homeward Bound.

FOR ten years, during three commissions, H.M.S. *Orlando* has proudly borne the flag of the commander-in-chief of the Australian squadron, but "the old order changeth giving place to new," and the time has arrived when the belted cruiser is to be replaced by a more modern engine of war. A wire from Albany announces the arrival there of the *Royal Arthur*, the new flag ship; in ten days' time she will have entered the waters of Port Jackson and effected the relief of the *Orlando*. In consequence of the news, there is a flutter of excitement among us, the latter ship's belongings. Many things have to be seen to before we commence our long voyage, adieux have to be made to the residents who have done us so well during the commission. Among these are some who hail from the Borough school and have made their mark in the new country; to wit, a worthy old knight who tells one with evident pride that he was Bransby Cooper's last hospital apprentice, and whose labours for the colony will be remembered long after he has joined the majority; Sydney's senior ophthalmic surgeon, the first specialist to practise in Australia—whose aged father, in his capacity of divisional surgeon to the Borough police, many a Guy's house-surgeon has met at Stone's End and the Newington Sessions; the Professor of Gynæcology in the Sydney University, and the able President of the Board of Health of New South Wales. We give our last "At Home," when the beauty and fashion of Sydney pin our farewell red, white and blue bows to their breasts, and appear eminently proud of their decorations.

On the morning of January 10th the *Royal Arthur* arrives. Salutes having been exchanged and official visits paid, we stream on board to see our successors, many of whom are not new to the station, it being a notorious fact that a man who has once served here, does his level best to return, and then many of them come to see us. As the afternoon approaches the ship is besieged by our station mates and friends from the shore, who have come to bid us "bon voyage"; the various points of land jutting into the harbour become thronged with people; innumerable shore boats surround us, and steam launches stand by to accompany us to the heads. Punctually at five o'clock, we slip and steam round the fleet, the *Royal Arthur* gives us three ringing cheers as we pass, these are taken up by each ship in turn, our band plays "Rolling Home to Merry England," "Auld Lang Syne," etc., and amid shouts, waving of handkerchiefs, and great demonstrations from the shore, the ferry boats and rowing boats, we steam out of the most beautiful harbour in the world for the last time. As usual in the case of a ship going home from a foreign station, in addition to our complement we are taking home time-expired men, invalids and prisoners, so that in the small space available for berthing in a man of war there crowded 506 men; but lest there should be any doubt of our commiting the sanitary sin of over-crowding, come all ye candidates for a D.P.H. with your tape measures, anemometers, thermometers, hygrometers, and chemical reagents, measure our ports (which must be closed in bad weather), our inlets and outlets, and tell us from your accurate calculations whether or not each man will get his fair share of fresh air during our two months' trip. Notwithstanding a few drawbacks, now that we have shouted ourselves hoarse and are "Homeward Bound," a heavenly calm prevails, life for the time is not regarded as a serious matter, petty annoyances cease to irritate, and our dinner band becomes a superfluity for there is music in our voices.

At sea we immediately pick up with our old friend, the albatross, which always accompanies us in our voyages from port to port; and the mention of this mighty bird recalls to mind an incident which shows the stolidity of the British bluejacket. Early in 1897, after a very rough passage from Hobart, we were approaching, for the last time, New Zealand, a country less unlike England than any other place I have ever struck, when the captain, addressing two bluejackets, pointed first straight ahead to the shore, and asked "What country is that?" then to our feathered friend, with "What bird is that?" The answers he received were, respectively, "I do not know as I have ever seen it before," and "I do not know as ever I 'eard the bird's name." This non-appreciation of surroundings almost rivals that of the native of India. Some years ago, in Bombay, I was told a story of an army officer who went on leave to the Himalayas. As is the custom of the country, he took his servant, a native. One day, while out shooting, he stopped at one particular spot, arrested by the marvellous grandeur of the scenery—the lofty, snow-clad peaks rising almost to the heavens, the glaciers, the distant water-falls—and awed by the dead silence. After standing wrapt in admiration for some fifteen minutes, he suddenly turned to the servant with "Well, and what do you think of this place?" The mild Hindoo replied, "Oh, sahib, very good place, bread is cheap and the water is sweet; very good place."

It happens, being summer-time, that there are a number of bush fires along the coast; the smoke from these gives to the full moon quite a lurid hue, and at the same time adds somewhat to the difficulties of navigation. A current takes us twenty miles to the southward of our course, and in the early hours of January 12th, we find ourselves unpleasantly near the shore in the midst of the Hogan group of islands. We manage to thread our way through, however, without mishap, and get into the Great Australian Bight (the Bay of Australia) which proves just sufficiently choppy to give us our sea legs. On the morning of January 17th, we arrive at Albany, where we remain for two days, coal, water, get mails, and have a run on shore, and now we have done 1,850 miles out of our 12,315.

At 6 a.m. on January 19th we put to sea. In the evening we round the Leenwin, and here say good-bye to Australia—country of gold, wool and frozen meat, land of cricket and horse racing, home of stalwart men and beautiful women. We soon pick up the S.E. Trades, but

a lonely voyage is ours now, for the outside world consists only of sea and sky, the latter at night when thickly studded with stars being very beautiful; the southern cross gets lower and lower in the heavens, and in latitude 18° south the great bear appears. As we get into the tropics some of our stokers give out. A very hard life is theirs when there is much steaming to be done in hot weather—eight hours' hard work in the confined stoke-hole of a man-of-war, with the thermometer at 160° and a following wind is sufficiently trying to the best.

On January 25th, we are abreast Christmas Island and on the limits of the Australian station; on the 26th we enter the Straits of Sunda and pass near Krakatoa, the volcano which commenced the general eruption in 1877, of world-wide interest. Late in the afternoon we arrived at Batavia, and here we are very anxious to get news, for in the present critical state of affairs in the East it is quite on the cards that we may be ordered to China to strengthen our squadron there; however, we get no news, and make up our minds that we are to adhere to our programme—Colombo, Aden, etc. We coal, water, get mails, and pay a visit to the shore. Batavia is rather disappointing; it is the rainy season, the country is swampy, malarial, and beautifully green with tropical vegetation. The town is large and is divided into native and European parts; a canal runs through its midst (what would the Dutch do without their canals!) and as we walk along its banks, seeing men defæcating here, some women washing clothes and others rice there, one wonders how it is that such people are ever free from plague and pestilence. On the afternoon of the 28th, we get under way and now have to say good-bye to our programme, for it is immediately passed round the ship that the Admiral has been informed by telegram that in consequence of other nations having strengthened their fleets in Eastern waters, it is highly probable that the *Orlando* will proceed to China; in fact, we are now on our way to Singapore for orders. During the night we experienced one of the inconveniences of nautical life; we turn in in a flat calm, it is very hot, and all our ports are widely open; at 3.45 a.m. one is suddenly awakened by a sea on his bed; as it is still calm it is a puzzle how it could have got there, and it is small consolation to be told in the morning that we had passed through a tidal wave.

We arrive at Singapore on the evening of January 30th, and immediately hear of wars and rumours of wars, the French and German Squadrons proceeding to China, the detention of the *Edgar* (which is effecting reliefs) at Hong Kong, etc. In order to be ready for emergencies we lose no time in filling up with coal and water, and then the news comes on February 2nd that we shall probably be detained here for one month. This is disappointing to us who are homeward bound, but in course of time one gets accustomed to accommodate himself to those things which are described as the exigencies of the service, and we prepare to make the best of it. Being little more than 1° N., Singapore is always a hot place, but it happens now to be what is called the cool season. It is probably the most cosmopolitan place in the world, and one of the most interesting sights is to watch the evening procession in Rotten Row; a very pretty picture of Eastern civilization is the result. The town is large, the country fresh and pretty, the botanical gardens extensive, and the museum interesting; but we are a long way from the shore, and do not have nearly so much of it as we have been accustomed to on our own station. During our stay we see a number of foreign men-of-war hurrying on to the East, the French do not call in at Singapore, but the Russian, German, Italian and American ships do, and we see something of their officers and the reception given to Prince Henry. A visit is paid to the Singapore General Hospital and Lunatic Asylum close by, several cases of beri-beri are shown, but one is most struck by the number of nationalities represented by the members of the nursing staff, English, French, German, Spanish, Chinese and Japanese. Early in our stay our crew is attacked with gastro-intestinal troubles, next with venereal disease, and then follows an epidemic of influenza, so that our sick list soon assumes proportions hitherto unknown during the whole of the commission.

On March 4th the *Barfleur* arrives, and on the 7th a welcome telegram which says we may proceed to England. At 5 p.m. on the latter date we sail, pass through the Straits of Malacca into the Indian Ocean, where the N.E. monsoon is prevailing; it is now but a gentle breeze, just sufficient to keep us moderately cool. Colombo is reached in the early morning of March 13th. As usual the harbour is full of ships, which are constantly coming and going. Many old acquaintances turn up—the dealer in precious stones, the vendor of Indian jewellery, the diving boys, who come alongside singing "Tara-ra-boom-de-ay," beating time with their bare arms against their naked chests, and asking us to throw coppers into the sea; and the gentleman who sells you two walking sticks for a shilling, and then offers you his remaining stock of four; in order to get rid of him you say you will give him sixpence for the lot, and, to your surprise, the bargain is at once concluded. During our stay of three and a half days some of us take a trip to the hills at Kandy and Nuwara Eliya, and are charmed with the two places. The *Victorious* and *Vladimir Monomach* (Russian) arrive on the 15th, both bound for the east, and on the 16th we sail, shaping a course for Aden. On our voyage across the Indian Ocean we do not see many ships, although in the direct line of traffic; the distance is so great that ships get spread out on the surface of the ocean, and it is quite possible to cross without seeing many.

On March 22nd we pass the Brothers and Cape Guardafui, and early on the 24th we arrive at Aden. Here we find the *China*, one of the latest additions to the P. & O. Company's fleet, and one of the finest mail steamers afloat, homeward bound from Australia, full up with passengers and conveying the Australian and Indian mails. At 2 p.m. she sails. We get our mails, coal, pay a visit to the inhospitable-looking shore, and, as usual, drive out to the Tanks, which are constructed in a gap between two hills, for the purpose of collecting

water, but as it rains once in about five years, it strikes one that the construction of these large reservoirs must have cost a vast amount of labour for very trifling results. Of course, the tanks are quite empty.

In the small hours of March 25th, we are informed by the P. & O. agent that the *China* has gone on shore at Perim, and at 8 a.m. we go to her assistance, elaborate preparations for towing are made on the way, and at 3 p.m. we are in sight of the stranded vessel, but, alas, we can do her no good, for she is hopelessly on shore with her after hold full of water and her decks getting displaced. She is likely to become a total wreck, and the good ship which yesterday was worth a quarter million sterling is to-day scarcely worth the value of the paint on her hull. Fortunately no lives have been lost, in fact the reverse has happened, for a birth has occurred on the beach during the night. The passengers and mails are being transferred to the *Carthage*, and we anchor for the night at Perim. Whenever one passes this delightful island a very old story is always trotted out. Perim is under the rule of the Resident at Aden, and it is the custom for a member of the Aden staff to be stationed at Perim for a definite time. Of course, the exile is always glad when his term of office expires, but some years ago the Resident was very much surprised to get an application from his Perim subordinate for an extension of his term of office. This was readily granted, but on the former proceeding to England on leave, he was still more surprised at meeting the latter at his club in London. It appeared that a goodly number of blank forms had been signed, and the senior clerk had rendered all returns, while the officer had been enjoying himself at home. A former Consul at Muscat, who had served at Perim, had gone home on leave from there, and this gave us the opportunity of scoring off our soldier friends, when, as the paid-off ship's company of the *Sphinx*, we took passage home in the Indian trooper, *Euphrates*, in 1890, for we listened with marked attention to the time-honoured story from the lips of our companions-in-arms, and then said, "Oh, yes, we know the man; it was —— of Muscat."

We leave Perim in the early morning of March 26th, and see plenty of ships as we proceed up the Red Sea. One is on shore at Jabal Zuker, but she does not detain us, and we arrive at Suez early on March 30th. We soon get into the Canal, and gradually wend our way through a most uninteresting country to Port Said. There is, however, something always to be seen in the Canal, and it is at least a novelty to be able to say 'Good-night" to a passenger in a passing ship. Sometimes, too, an amusing incident occurs. An old shipmate told me that once when he was coming through in a trooper he passed a herd of half-wild cattle. Evidently from their frightened looks, their huddling together, and their unwillingness to proceed, they had never seen a ship before. Suddenly there was a blast from the ship's siren, when immediately fifty bovine tails were shot straight into the air, and with a mighty bellow, which emulated the trooper's music, the herd disappeared in a cloud of dust and were scattered widely over the desert, while the drovers stood on the bank and shook their fists vigorously at the ship, using language which can be better imagined than described, for nobody on board understood a word of it. I know of no fact which bears so eloquent a testimony to the commercial greatness of England as this—that in the years 1890 to 1896, of the total shipping which passed through the Suez Canal, from 63 to 77 per cent. was British. Port Said is a very wretched place. When I first went eastwards, some 11 years ago, I thought it must be the worst place on earth, but on my return three years later, it seemed to have improved very much. I have since come to the conclusion that there was no real improvement, and that the apparent change was due to my having seen very much filthier places in the meantime. Port Said is the champion coaling station in the world. Watch that monster German mail-boat, *Barbarossa*, close by! She has a lighter alongside port and starboard, two stages connect each to the ship, up the one goes a constant stream of coolies, each with his basket full of coal, while down the other comes a similar stream of men, but the baskets are now empty. Witnessing this it becomes possible to believe the fact that the Port Said coaling record is 900 tons in one and a half hour. A stay of four days is made, and leave can be had for a trip to Cairo and the Pyramids. The climate here is now delightful, and is fully appreciated after our prolonged voyage in the tropics.

We sail on the 3rd, and get head winds and a rough sea for a couple of days, after which we light on proper Mediterranean weather, smooth seas, blue sky and a genial warmth. Malta is reached in the morning of the 7th. Being Passion week there is no opera (which does not signify much to us as we are sailing the same afternoon); the condition of affairs, too, is indicated by all the flags on shore being at half-mast, and we have only just time to look up our old haunts and give a hand shake to former messmates, for at 4 p.m. we are under way. We have a fine weather passage through what remains to us of the Mediterranean, get a distant view of the North African Coast, which appears to be fine country, and on the 10th have our first glimpse of Europe, for we are now passing the snow-clad Sierra Nevadas.

The early morning of the 11th sees us at Gibraltar, where one finds a small colony of Guy's men. Of six naval medical officers in port, three hail from the Borough school. We have a run on shore, inspect the naval works, on which the small sum of four millions is being spent, and find many old messmates in the ships in harbour. We have to make good some small defect in the engine-room; and at noon on the 12th we commence the last stage of our voyage. A fine passage along the Portuguese coast, a bit of a tumble in the Bay, and at 5 p.m. on April 15th we are abreast of Ushant. Thirteen hours afterwards we pick up St. Catherine's Point, and no sights of the Southern Seas ever gladdened the heart of the Britisher so much as do those which now come into view in rapid succession—Southsea, Haslar, Portsmouth and Gosport, with the Portsdown Hills in the distance. W. H. PRYN, Staff-Surg., R.N.

Passim.

The marriage of Alfred Downing Fripp, M.S., F.R.C.S., Surgeon-in-Ordinary to the Prince of Wales, with Margaret Scott Haywood, only daughter of Thomas Burt Haywood, Esq., of Woodhatch, Reigate, was duly celebrated on Wednesday, June 8th, at the Parish Church, Reigate, in the presence of an overflowing and distinguished company. A considerable number of Guy's men were present, including many of the Staff, and all attended the reception held afterwards at the residence of the bride's father. After the ceremony Mr. Fripp and his bride left for Dorsetshire, for their honeymoon. The presents, which numbered close upon four hundred, were very handsomely displayed, the chief centre of attraction being a fine silver bowl, the gift of the Prince of Wales.

This afternoon the postponed Past v. Present cricket match is to take place at Honor Oak Park, and is sure to attract a good crowd of spectators. The Past team has been got together by that excellent bat and all-round sportsman, Dr. W. J. Scott, at the present time one of the anæsthetists to the hospital. Although, judging from the present form of the cricket team and the results of former matches, in which the "Past" have never yet managed to win, we feel bound to predict a victory for Alexander and his men, yet there is no reason why the game should not be close and exciting, and is bound to be most enjoyable, whatever happens. In the evening the teams, together with those who fought out the tennis battle on Whit Monday, will, through the kindness of the clubs' respective presidents, dine together in the College Library.

The cricket eleven is, at the present time, going very strong. Four, if not five matches running have been won, including the first cup-tie, and although, perhaps, the scoring is hardly as heavy as it has been of recent years, the condition of the wickets and weather experienced fully accounts for this. Moreover, the bowling is decidedly above the average, and with an excellent batting "tail," the team is as good an all-round one as Guy's has had since the time of the Bettingtons.

By the time these lines appear in print, the Cup Tie against Bart.'s will in all probability have been definitely decided, and given even conditions, the match ought to have proved a close and exciting one. Unfortunately for our readers, we are compelled to go to press before hearing the result.

Next Wednesday the Annual Sports are to be held on the Clubs' Union Ground, and here again it is sincerely hoped that a good crowd will be present. The entries are hardly what they should be, considering the advantages which every Guy's man enjoys, and it seems that the all-pervading spirit of work is slowly but surely affecting the success of what ought to prove one of the most enjoyable events of the season. Alas, that it should do so, when all right-minded persons know well that work and recreation ought to go hand-in-hand. In view of the near approach of the date of the Inter-Hospital Sports, we earnestly hope that all those who have any chance whatever of getting into the team will do their level best to get fit.

Dr. Cruikshank, of Chingford, writes to us proposing the arrangement of a Past v. Present Golf Match, and suggesting that it should take place about the time of the Biennial Dinner. As he says, old Guy's men have more opportunities of keeping up golf than either cricket or tennis, and so the match should prove a more *bona fide* test than either of the other games. He further suggests that those members of the Staff who can, should assist the Present team, and considering that the latter would only be temporary, this suggestion seems a good one. We shall be pleased to hear from any one willing to get together a team to represent the Present, and then the details as to time and place can be arranged.

The appointment of obstetric ward-clerk is, at the present time, most unsatisfactory—in fact, as often as not there might as well be no ward clerk at all. For some reason or other the appointment is not viewed with favour by men, and so it is rare the full number of applications are made for the post—in fact, it generally goes begging. The work entailed is, however, extremely important, and might very easily be made more interesting, and it was as a step in this direction that a proposal was made recently in our hearing for embodying the duties of Obstetric Ward Clerk and Gynæcological Assistant in one appointment. This seems to us to be an excellent idea, and we commend it to the authorities for consideration. All those with whom we have discussed the question are

agreed that some change in the present order is called for, especially now that we have Mr. Targett as Obstetrical Registrar and Tutor, and the forthcoming change of wards would be an excellent opportunity for making the change. If the duties of the combined appointment included officially those of "dresser" to the Charities, still greater would be the gain in efficiency.

THE arrangements for Prize Day, which is fixed for Wednesday, July 13th, are now being rapidly pushed forward. As already announced in the public press, the Right Hon. A. J. Balfour is to be the principal guest, and following the precedent of last year, academicals are once more to be donned by all entitled to them. The chief ceremony is to take place in the theatre of the New Buildings, the uncomfortable arrangement of the marquee in the eastern quadrangle being thus dispensed with. What was gained in space with the old arrangement was quite lost in comfort, as a tent is about the worst place possible for public speaking.

THE sudden and unexpected death of Franz Forester Foster-Foster, the chief medical officer of the British Hospital at Port Said, will come as a great blow to all Guy's men who knew him. He qualified here in 1890, and in '92 went out to Egypt to take up the above-mentioned post. As late as last month he wrote home saying that he was in the best of health, so that the sad news of his death was all the more unexpected. His relatives have our heartiest sympathy in their bereavement.

THE employées of Butler's Wharf, Bermondsey, deserve the best thanks of Guy's folk for the way in which they have again exerted themselves to help forward the great effort for the re-endowment of our Hospital. Recently they forwarded to the Treasurer a sum of over £35, the sum resulting from the second nigger entertainment that they have given in aid of the fund. It is not so much for the money itself that we are grateful, but for the example set by them and their obvious interest and trust in Guy's. It is sure to have a far-reaching result.

WE should like to call the attention of all Guy's men to a performance of "The Rose Queen," which is to be given at Sydenham Public Hall next week. It is an original production, and the music is composed by Mr. Balfour D. Adamson, who conducted the Disguysed Minstrels so successfully in 1897. The performance is in aid of the Re-endowment Fund. Tickets can be obtained of Mr. Reaside, in the office of the Secretary to the Treasurer.

WITH regard to the certificates to be granted to nurses of less than three years' standing, of which a notice appeared in last GAZETTE, we must correct a rather important error. The certificates in question are only to be granted to those nurses who have to leave from illness or ill-health, and not from any other cause, and then only if the particular case is considered deserving of one. As in nursing circles it is considered a heinous crime to grant a certificate for any period of less than three years' work, for the credit of our Nursing Staff we must emphasize this important point.

A QUESTION of etiquette! To what extent should a student "cap"—to use the popular term—any member of the Staff? There are many points of this question about which doubt apparently exists. For instance, should a junior student make obeisance to those of the Staff with whom he has not yet come into personal contact, or whom he knows only as lecturers? Under the existing understanding it always seems to us that the less a student knows any given surgeon or physician the more he "caps" him, or, perhaps, the better he knows him the less often is his head covering raised. Which seems rather extraordinary!

WE cannot help thinking, too, that the members of the Staff would prefer to have a better understanding on the question. Those who return any salute with a graceful wave of the arm, umbrella or what not—and this course seems to be the most popular—have the easiest time. But those who feel in duty bound to reciprocate any uncovering on the part of a student, often have a very hard time of it, especially if the meeting-place happen to be the crowded colonnade, when one student sets the example and others follow. Can anyone enlighten us as to the best course to adopt?

OUR congratulations to Messrs. Stamm and Tessier on their appointment as Assistant Demonstrators of Anatomy. The appointment is far and away the most valuable that a junior man can hold, and we have no doubt they will fully appreciate this fact, and make the most of their opportunities.

NOTHING has yet been heard of the proposed meeting to consider the question of smoking in the club rooms. Why is this? The summer session is fast passing away. Half-time has come and gone, and still the offender lights his pipe or cigarette, while others lunch or tea, and still the wearied committee men protest and demand those half-dollars that are never paid.

ALL will hear with regret that Mr. Hopkins is soon to leave Guy's for good, in order to take up the position at Cambridge of University Lecturer on Physiological Chemistry. At his departure the physiological department at Guy's will suffer a great loss, but much as we regret his leaving, he takes with him, we are sure, the heartiest well wishes and congratulations of all those he leaves behind. The appointment that he has obtained is unique in its way, he being the first in England to receive such a Lectureship.

WE were asked the other day why photos of of various members of the Staff cannot be obtained at the Hospital. Though we ventured to suggest that, as a subscriber to our humble effort, he had in his possession a series of excellent counterfeit presentments of the greater number of the distinguished members of the profession alluded to—though by the way, there are still a few more yet to come—still he was not satisfied. We believe, however, that Jerrard's have at one time or another taken nearly every one of our physicians and surgeons, and presumably there could be no objection to anyone obtaining any photo he wanted direct from them. Our questioner believed that if Mr. Mills at the Library could act as agent for those firms of photographers, who publish portraits of Guy's men, he would do a brisk trade in them. Though we confess we are hardly as sanguine, still, perhaps, the question is worth considering.

ONCE again the evidence of Dr. Stevenson has resulted in the bringing home of a dastardly crime to the door of the guilty party. And we notice with pride the comments of the judge and the daily press on the skill and unimpeachability of the expert evidence in the St. Neot's poisoning case. To those "in the know," does it not seem almost absurd, that so easily recognised a poison should be so comparatively frequently used for such purposes? The taste reveals itself to its victim, and that weird symptom, the feeling of impending death, is almost always present, and makes the dying declaration of the victim evidence at the trial.

WE notice with some alarm the various letters and articles in the daily press respecting the new County Council regulations with reference to the out-door lamps and gas-lights. What if our front quadrangle only lamp happens not to fulfil all the required demands, and is confiscated. Ah, what?

AN unpleasant, though possibly healthy, odour pervaded the greater part of the hospital grounds during the middle days of the week, and its obvious connection with the lively movements of a bucket between terra firma and a window of Queen Victoria ward, caused us to wend our weary footsteps up the three flights of stairs of Hunt's House in order to discover the destination of the bucket contents. We were surprised, not to say pleased, with the progress things have made up in those elevated regions. The whole of the floor of the eastern side of the ward is practically finished, and is similar in construction to those of the Front Surgery and New Operating Theatre. The black, molten matter from the buckets was being spread out to form the floor of the numerous little recesses, cubicles, and so forth at the far end of the ward, the mosaic arrangement being reserved for the two main portions of the ward. The carpenters, too, were busy, so that it seems that the time is not as far distant, as some imagine, for the transit of Dorcas.

THE Residents' Dance last Friday week was, as it always has been, a great success. Mrs. Cosmo Bonsor was, of course, a perfect hostess, and the presence of the majority of the Senior Staff of the Hospital, added greatly to the enjoyment of the evening. Altogether, Mr. Fisk, on whose shoulders, as President of the Residents, the greater part of the arrangements fell, deserves the thanks and congratulations of all who were privileged to be present.

THE first dinner of the Guy's Colonial Club took place last Wednesday evening in the Duke's Room, Holborn Restaurant. Mr. Symonds, the president, occupied the chair, and about twenty members were present. An extremely enjoyable evening was spent, and the speeches were interspersed with vocal and instrumental music. T. W. Landon, who was to have been the accompanist of the evening, has fallen a victim to the Klebs-Löffler bacillus, and everyone will wish him a speedy recovery. The vocalists included Messrs. Cross, Gibson, Dallas, Mullins and Bagshawe, and the latter proved as well an

efficient and able accompanist. The officers of the club are to be congratulated on the successful inauguration of the new venture.

ANY student who is weary of work is now at liberty to combine pleasure with instruction, and go and inspect the latest addition to our Zoological Museum. Facing the door of the museum, this fearful and wonderful seven-footed monster, Cerberus-like, guards the entrance. The skeleton of the fine old fighting rhinoceros, with his many callosities, has had to make way for the newcomer, and now stands demurely on one side. We notice that the authorities have not yet labelled the new beast, so we are still in ignorance as to its true title. By its many tentacles we are reminded of those weird and terrible creatures described by H. G. Wells in the "War of the Worlds," and possibly the animal belongs to the same tribe. We sincerely hope it has no equivalent to the "heat ray" concealed about it, but there is certainly an atmosphere of warmth in its immediate vicinity which rather suggests it.

THE trees placed last year by our generous treasurer in the two quadrangles of the surgical building, are already showing signs of the disadvantages under which they struggle for existence. Three are undoubtedly quite dead, and the others are certainly not as healthy and vigorous as they were last season. In the face of this obviously desperate struggle, in which even the fittest cannot possibly survive very long, would it not be better to deprive the hospital sparrows of the pleasures which the trees doubtless give them, and transfer them while there is yet time to a more favourable and healthy situation.

Vacant Staff Appointments.

THE following vacancies for next Winter Session are announced:—

2	Demonstratorships of	Anatomy.
1	"	Bacteriology.
1	"	Biology.
1	"	Chemistry and Physics.
1	"	Physiology.
4	"	Practical Dentistry.

1 Curatorship of the Dental Museum.

Further particulars may be obtained from the Dean. Applications should be addressed to the Treasurer, Superintendent's Office, Guy's Hospital, S.E., on or before Monday, June 20th, 1898.

June 13th, 1898.

Infection.

THE TREASURER'S PRIZE ESSAY.

BY F. O. STOEHR.

(*continued*).

WORK OF DAVAINE AND HIS CRITICS.

In 1850, Davaine killed a sheep by inoculating it with the blood of an animal dead of anthrax. He found that the blood of both animals eight or ten hours after death contained large numbers of bacteria, whereas the blood of a healthy sheep contains none.

In 1861, Pasteur had succeeded in showing that the butyric fermentation is caused by vibrios or bacteria. Davaine was struck by the analogy between these bacteria and the organisms he had observed in splenic fever.

It was not, however, until 1863, that he was able to procure the blood of a sheep dead of the disease. With this he inoculated three rabbits which all died, and bacteria were found in their blood both during the illness and after death. A rat which he inoculated never became ill, and nothing was found in its blood. Davaine described the form of the bacilli. He observed that they preserved their form when dried, and disappear when the blood putrefies. By this he considers them to be separate from the infusoria which form in putrefaction. He concluded that here was the first experimental proof of the existence of contagium vivum.

Davaine next carried his inoculations through a series of eleven animals, thus proving conclusively that the organisms are developed in the blood.

In a third communication he recounts an ingenious experiment to prove that the bacteria and nothing else in the blood are the causes of the disease. An adult rabbit A. was inoculated with the blood of this animal; before bacteria appeared in it, a young rabbit B. was inoculated. After the appearance of bacteria in the blood of A., this blood was inoculated into another rabbit C. Result;—A. died; C. died immediately after; B. was never ill.

Davaine now asserts his bacillus is the visible and palpable agent of contagion. He had in fact shown that the appearance of bacteria in the blood immediately precedes morbid symptoms; that blood containing bacteria is contagious; that blood containing no bacteria is not contagious, whether the bacteria afterwards appears or whether they have disappeared owing to putrefaction; that dried blood containing bacteria retains contagious properties.

The next year there appeared a criticism of Davaine's work, by certain MM. Jaillard and Leplat. Their destructive criticism is very pertinent. "Instead of inoculating animals with blood, a complex liquid, in which the microscope can only reveal a small number of the enclosed elements, it would have been wiser to operate with bacteria only freed from all accessory material."

Unfortunately the experimental work of these gentlemen was far more faulty than the work they criticised.

"This is what we have done in a series of experiments. One knows that bacteria develop in all liquids which contain animal or vegetable matters in process of alteration. Hence, nothing is easier than to procure for oneself these little microscopic beings which have the greatest resemblance to one another and are without any doubt possessed of the same properties. For want of blood from subjects attacked by anthrax, we have taken from an entirely different source the bacteria which we have used for our attempts. We have taken them sometimes from vegetable infusions, sometimes from liquid charged with decomposing animal matter."

Injecting this material into animals, it is not wonderful that MM. Jaillard and Leplat failed to produce anthrax. After which they concluded that anthrax is not caused by bacteria.

Davaine had no difficulty in showing that septicæmia is not anthrax, and consequently that these experiments in no way affected the point at issue. He proceeds, however, to demonstrate in a new way the difference between the bacilli of anthrax and the vibriones of putrefaction. It was found that if blood is allowed to putrefy exposed to the air it was extremely difficult to satisfy oneself of the disappearance of the anthrax bacilli because the fluid became so crowded with vibrios. But if fresh blood was introduced in the capillary tubes and sealed, Davaine showed that the anthrax bacilli disappear and no infusoria are developed.

He further showed experimentally that the inoculation of putrid anthrax blood in small doses is harmless, but if large doses are used there may be septicæmia but not anthrax.

He further showed that anthrax can be caused in susceptible animals by letting them eat food contaminated by anthrax bacilli.

In further communications Davaine proved:—

1. The essential identity of human anthrax with the splenic fever of animals. This he did by demonstrating anthrax bacilli in a malignant pustule which had been removed by operation, and by causing splenic fever in animals by injecting fragments of the pustule. In the animals dead of the splenic fever the anthrax bacilli were again found.

2. Jaillard and Leplat had caused a disease in cows which they confused with splenic fever. This led Davaine to make most careful investigations into the clinical and post-mortem effects of the anthrax bacillus in various animals.

3. By allowing blood containing anthrax bacilli to stand until the solid particles fell to the bottom, Davaine was able to prove that the virus is contained in these solid particles, and not in any soluble constituent of the blood.

But there were still difficulties to be explained, viz:—

1. It was shown that by the injection of blood containing anthrax bacilli, anthrax might be caused; but sometimes this latter blood when re-injected into an animal was found to contain no bacilli, yet anthrax was caused none the less.

2. Anthrax depends not only on contagion, but has an indisputable relation to the conditions of the soil, *e.g.*, it is found in damp valleys, particularly in wet years, and particularly in August and September.

3. The bacilli had never yet been isolated from the blood corpuscles and fibrin in which they were to be found, *i.e.*, grown in pure culture, and so made to reproduce the disease.

It must now be shown how two of these objections were met by Koch, the third by Pasteur.

KOCH'S PAPER.

After summarizing Davaine's work and the objections which had been brought against it, Koch goes on to observe that in his experience the bacilli were not nearly so resistent as Davaine had thought. Blood which contained nothing but bacilli remained virulent only a few weeks dry, and only a few days wet. Hence one must assume either some alteration of generations or else that the bacilli form spores.

Development of the bacilli.—That this latter hypothesis was correct, Koch proved by three experiments.

1. In the blood and tissue juices of the live animal the bacilli multiply with extraordinary rapidity by lengthening and transverse segmentation. This was proved by the inoculation of mice with anthrax-containing blood. The bacilli were found in the blood in large quantities and showing signs of division, either a transverse line in the middle, or a nick, or almost complete separation.

2. In the blood of a dead animal, or in other suitable nutrient fluid, the bacilli grow within certain limits of temperature, and, with free entry of air, develop into extraordinarily long undivided leptothrix—like threads with formation of numerous spores.

The experiments proving this are so beautiful that I cannot refrain from quoting them at length. "The simplest way of satisfying oneself of the correctness of this statement is by the following experiment:—A drop of fresh blood-serum or aqueous humor of an ox is laid on the slide, into this is brought a small fragment of fresh bacillus-containing spleen, and the cover-glass laid on it in such a way that the mass of bacilli comes to lie almost in the middle of the preparation. To prevent the drying up of the fluid the slide is immediately put in a damp chamber and laid in the incubator. So prepared, the preparations remain fifteen to twenty hours in the incubator at a temperature of 35° to 37°. If they are now examined there are found in the middle of the preparation, between the still well-preserved cells of the splenic pulp or the blood corpuscles, many unchanged bacilli (fig 1.*) yet fewer than in the fresh preparation. But as soon as one leaves the middle of the preparation one finds bacilli which have grown to 3–8 times their original length and show slight niches and curves (fig. 2). The nearer one comes to the edge of the cover-glass the longer are the threads that one finds, coiled round and round, and reaching to more than a hundred times the

*I had meant to put in some sort of reproduction of the plate with which this experiment is illustrated, but it proved to be easier to admire the plate than to draw it.

length of the original bacilli (fig. 3). Many of these long threads have lost their homogeneous structure and their transparency, their contents is finely granular, and in places there are to be seen little more highly refractile granular bodies at regular intervals (3a). The developments have gone furthest in the threads close by the edge which are in the most favourable position as regards the exchange of gases in the nutrient fluid. These show completely developed spores in the form of oval highly refractile bodies occurring at quite regular intervals in the substance of the threads (4a). Many threads are also caught in the act of dissolution, their former appearance being only inferred from the position of the spores, which lie in lines, being held together by a slimy substance. Between these lie at times little independent bundles of spores rolled up together.

Surely this experiment is decisive enough to convince the most sceptical, but it was not decisive enough for Koch. "Although I often repeated this experiment, and always with the same result, yet there occurred to me many objections to the correctness of this assumption. How came the bacilli, to which I had hitherto attributed no independent movement, to the edge of the cover-glass, while the blood corpuscles remained in the middle? Could not the long spore-bearing threads possibly have arrived at the edge of the cover-glass through embryos brought through the air? For the preparations were not sheltered from such a mode of contamination.

To overcome this objection Koch devised a warm hanging drop, in which he was able to watch the development of the spores every ten minutes; and further managed to do all necessary manipulations aseptically, so that he preserved more than one-half of his cultures pure.

3. The spores of the anthrax bacillus develop under certain conditions (suitable temperature, nutrient fluid, and entry of air) directly back to the original bacilli.

Having found these conditions, Koch was able to watch under one cover-glass the development of spores into bacilli, and bacilli back again into spores.

BIOLOGY.

Bacilli straight from the body dried in very thin layers lost their power of multiplying in artificial culture, and of producing disease in mice, in twelve hours. Thick layers kept it two or three weeks, still thicker four or five weeks. Only those dried substances produce anthrax which at the time of drying contain spores, and conversely. The optimum temperature at which the bacilli form spores is 38°. The limits are between 18° and 45° C.

The bacilli in blood in a bottle die, and the blood putrefies. But the death of the bacilli is for want of oxygen; for bacilli in a close chamber under the microscope grow as long as oxyhæmoglobin is present, but die in reduced hæmoglobin, even though no bacilli of putrefaction be present. Koch watched the death of the bacilli, and saw them lose their contour and disappear. He observed that they never became cocci. If oxygen were allowed to enter, and the temperature does not fall below 18° C., the bacilli grew along with the bacilli of putrefaction and formed spores.

Spore-holding substances were dried; after some time again moistened with water, and submitted to this procedure several times; but they did not therefore lose their power of producing disease. They could live for years in a dried condition.

A mouse inoculated with many spores died in twenty-four hours, others inoculated with a few spores died in three days. Animals inoculated with putrid blood from a healthy animal did not die.

Koch failed to infect mice and rabbits by feeding them with infective material. He failed to infect dogs, ravens, starlings and frogs in any way whatever. He put the spleen of a mouse dead of anthrax under a frog's skin, the frog took no harm. On examination there were no bacilli in its blood. In the spleen bacilli were found inside leucocytes. It was probably this experiment which suggested to Koch the conception of wandering cells as carriers of bacteria, a conception which he afterwards developed in his discussion of the ætiology of tuberculosis.

ÆTIOLOGY.

Koch has proved that the organisms in question, whether fresh, dry, or putrid, suspended in various liquids, whether as bacilli or spores, never failed to cause anthrax. He there asserted that the organisms are the cause of the disease. He had further gone far towards showing how the disease may actually be caused in cattle, and had met the objections brought against Davaine.

For, since the bacilli are capable of forming spores at 18°C., if only kept moist and supplied with oxygen, it is obvious that they could form spores in summer, and most favourably in damp valleys. And again, the spores keep for years their power of causing disease. Again, if blood from a case of anthrax were placed in suitable conditions for spore-formation it would then cause the disease although no organisms would be visible in it.

If Koch had succeeded, as Davaine did before him, and as other workers have done since, in producing the disease in animals by feeding them with infective material, he would, of course, have regarded his proof as more satisfactory. As it is, he admits he does not know which is the normal channel of infection (but how Koch has explained the prevalence of the disease in August or September I confess I have not made out).

We come at last to the last chapter in this long story. Pasteur, as the father of bacteriology, had stood behind all the researches of Davaine. In every side question that arose, *e.g.*, the discussion on spontaneous generation, and, again, on the mutability of species, his work had done the most vital service to pathology, yet he for long hesitated to leave pure science for medicine; and many think that it was mainly the growing reputation of Koch which at last spurred him into rivalry. His paper on the bacillus of anthrax is, I believe, his first contribution to medical science.

PASTEUR'S PAPER.

After reviewing the history of this subject up to his time, including Koch's contribution, Pasteur goes on to describe his own method on making a pure culture. Into some artificial culture fluid, *e.g.*, urine rendered alkaline, he puts a drop of anthrax blood, from this he passes to a new urine, and so on for months. Finally inoculating, he produces typical anthrax.

It might be objected that the parasite was associated in cultivating liquid with some soluble substance which it produced during its life. Pasteur accordingly transported some cultivating tubes into the cellars of the observatory where a temperature absolutely constant reigned, a circumstance which permits of a deposit of all of the parasite filaments into the bottom of the tubes. Inoculating afterwards, both with the clear upper liquid and with the deposit at the bottom, he found that the latter alone produced disease and death.

With this complete proof we must leave the bacteria of anthrax. It is true that Koch, afterwards criticising Pasteur, asserted that the Frenchman's fluid cultures were generally impure. Pasteur retorted that he was making pure cultures when Koch was a baby. Koch replies with abuse. Pasteur descends to insults. The earnest student cannot follow the arguments for the mud, and the commentator moralises on the odium pathologicum. A discussion so scandalous is little suited for the physical society. Suffice it then to say that posterity has decided in favour of Pasteur on the facts in dispute, yet prefers, wherever possible, to use Koch's solid rather than Pasteur's fluid culture media.

As examples of the most perfect method of proof, that in which the organisms are isolated and made to produce the disease anew in susceptible animals, these instances must suffice.

1. The method has been completely successful in eight diseases, viz., anthrax, diphtheria, tetanus, glanders, tubercle, actinomycosis, gonorrhœa, malignant œdema. In these the four bacteriological canons of Koch have been satisfied. (1) The organism is always found associated with the disease, and is not found associated with any other disease. (2) It can be grown in pure culture. (3) The pure culture injected into animals reproduces the disease in its typical form. (4) In animals so infected the organisms are found in the proper tissues.

2. In three diseases, viz., typhoid fever, influenza, and mycetoma or madura disease a certain organism is constantly associated with each disease, and not found in any other condition. Further, this organism can be cultivated outside the body. But the injection of the organism into animals fails to reproduce the disease in its typical form.

Typhoid and influenza may be very shortly discussed.

Typhoid.—Klebs, in 1880, found the bacillus typhosus in the mesenteric glands and spleen. Gaffky, 1884, grew it outside the body, but failed to reproduce the disease in animals. It was found that the tubercle bacillus is easily killed by gastric juice; hence it occurred to Beumler and Peiper (1) to neutralize the gastric juice with soda, (2) to inhibit peristalsis by means of opium. After doing this they caused death in animals by subcutaneous inoculation, but without typical typhoid lesions. Further, it was found (1) that the bacilli did not multiply in the body, (2) that the same results were produced by inoculation with dead cultures. Hence it was argued that these observers had produced an intoxication, not a true infection. Sanarelli found that he could exalt the virulence of typhoid bacilli by injecting along with them a sterilised culture of bacillus coli. With this he claims to have produced typical typhoid lesions; but no one has been able to repeat his experiments.

Influenza.—The organism is found in the respiratory passages, and as the disease advances it is to be seen in the leucocytes. It is rare in the blood. Injection produces in animals severe symptoms and death, but the bacilli rapidly decrease. Hence this is thought to be another case of intoxication.

3. A third class contains leprosy and relapsing fever. These are characterised by the invariable presence of organisms not otherwise found. No one has succeeded in growing the organisms outside the body. In relapsing fever inoculation of human blood into monkeys has reproduced the disease. In leprosy inoculation has failed both on man and animals.

4. The fourth class consists of a group of diseases which each seem to be produced by more than one species of organism. Each organism is pathogenic and will produce, but not always reproduce, the disease in animals. Thus lobar pneumonia seems to be caused either by Fraenkel's pneumococcus or Friedlander's pneumobacillus. Meningitis and infective endocarditis may be due to the pneumococcus, or more often to streptococci and staphylococci. All the "septic" and suppurative diseases, such as pyæmia an septicæmia, osteomyelitis, etc., are caused by any of the various cocci, and so on.

5. In the fifth class comes cholera. The history of bacterial investigation of this disease illustrates a fallacy which it seems quite impossible to avoid, viz., the fallacy of supposing that a disease can only be caused by one organism, because only one organism has as yet been proved associated with the disease. Koch's work in 1883 and 1884 on the common bacillus seemed almost conclusive of its specificity. (In nearly one hundred cases of the disease he had never failed to find the organism in the fæces, in the intestinal contents, and in the superficial parts of the mucous membrane. He had obtained pure cultures and described their characters. He failed to find any animal naturally susceptible to the disease, hence simple feeding with infective material gave negative results; in later experiments after neutralising gastric juice with soda, and inhibiting peristalsis by means of opium, he was able to produce a disease which certainly resembled cholera. The intestinal contents of one of the diseased animals was able to reproduce the disease in another animal. Thus there seemed to be strong evidence for regarding the comma

bacillus as the specific cause of cholera. Of late years, however, there have been isolated a number of vibrios, which, morphologically different from the common bacillus, produce the same or nearly the same effect. Hence the whole question has been reopened and is still under discussion.

6. The sixth class contains a number of infectious diseases in which no organism has been separated. Among these are syphilis, rabies, typhus, mumps, whooping cough, small-pox, measles, and other acute exanthems.

Of the acute exanthems we may say they have all the characteristics of the miasmatic contagious diseases of Henle, *i.e.*, besides their contagiousness they occur in epidemics, each one runs a typical course, and the poison multiplies in the body. To this evidence we may now add the obvious analogies of these diseases with others now known to be caused by bacteria.

As regards *rabies*, Henle, as we have seen, doubted its bacterial origin chiefly on the ground that it seemed to break out spontaneously. Careful work since his time has practically established its infectivity. Further, the disease, both clinically and pathologically, very closely resembles tetanus, which is certainly caused by bacteria. And in the third place, Pasteur's treatment is based on exactly the same principle as the treatment by which active immunity is obtained against bacterial infection. It may be objected that active immunity is also to be obtained against non-bacterial poison, but there is this difference, that in the latter case the poison acts immediately, so that it is useless to attempt this means of immunization after the poison has been taken. Rabies, on the other hand, has a latent period averaging forty days. With regard to passive immunity, the argument holds good, hence the lately alleged possibility of an antitoxic treatment of rabies cannot be held to favour the hypothesis of its bacterial origin.

In the case of *syphilis*, we must consider first its contagiousness and the certainty that the poison multiplies in the body. Secondly, a point that it has in common with many diseases is that one attack protects against another. Thirdly, its resemblance to tuberculosis. This may be expressed as follows:—In typical syphilis we have (1) a local lesion at the seat of infection, (2) a general infection, and (3) chronic local lesions in various parts of the body.

The course of tuberculosis may conform to one or more of these types. Thus, one may get a tuberculous gland in the seat of inoculation, or a general miliary tuberculosis, or chronic local processes at parts which cannot have been the first seat of infection, *e.g.*, a tuberculous knee. The most striking difference seems to be that the tubercle bacillus, if widely diffused, secretes a poison virulent enough to cause death by toxæmia, whereas the pyrexia and headache of secondary syphilis are comparatively mild affections. The resemblance between a gumma and a tuberculous nodule is obvious.

To the objection that the agent in syphilis before giving rise to tertiary symptoms seems to lie idle for a period which may extend to years, it may be replied that there is evidence that the bacillus of tubercle does the same thing. This evidence will be considered in another place.

Finally, it may be said that congenital syphilis has no parallel in tubercle, but the observations of Baumgarten have made it quiet certain that tuberculosis also may be congenital. Lustgarten claims to have found in a considerable number of cases of syphilis—primary, secondary and tertiary—a bacillus with characteristic form and staining reactions. This he considers to be the cause of the disease. The question is still in dispute.

Before leaving this part of the subject we must mention yet another way by which it has been proposed to establish the relation of a disease to an organism. This proposal is due to Sidney Martin, who in four diseases has made artificial cultures of the bacteria, has extracted from them poisonous substances, and demonstrated the chemical and physiological identity of these substances with poisons obtained from the tissues of a diseased animal. In this connection it will be as well to give a brief summary of the general doctrine of toxines.

It has been seen that Henle anticipated this doctrine when he suggested that the fever and general symptoms in infectious diseases are probably due to "changes in the blood or organic substance at the expense of which, the supposed parasites multiply."

This hypothesis was strongly confirmed by Koch's observation on the comma bacilli that they are confined to the intestine and do not penetrate the tissues. Here are Koch's own words:—"It is certainly a peculiar phenomenon that the comma bacilli should be confined to the intestines. They do not spread to the blood, nor even to the mesenteric glands. How does it happen, then, that this vegetation of bacteria in the intestine can cause death? To explain this it must be recollected that the bacteria in their growth do not only use up matter, but also produce substances of a very different kind. We already know a number of these products of bacteric fermentation, which are of a very peculiar nature. Many are volatile, and give off an intense odour, others form colouring matter, others again form poisonous substances. The decomposition of albuminous fluids, such as blood, produces poisons which, since the decomposition is only a consequence of the growth of bacteria, must be the products of change of these bacteria. Many appearances are in favour of these poisons being produced only by a given kind of bacteria, for we see that putrid fluids, which at one time can be injected into an animal without having any effect, at another time will prove to be highly poisonous. Thus I should explain the action of the comma bacilli in the intestine as being due to the poisonous products of decomposition. In support of this view I possess certain facts. In one of the cultivation experiments the gelatine had a fairly large number of blood corpuscles in it, as well as comma bacilli. After the gelatine had been poured out on a glass plate a number of colonies of comma bacilli

grew. The plate had the appearance as if a red-coloured dust were suspended in it, as the effect of the individual blood corpuscles could be clearly made out by transmitted light. In this red granular layer the colonies of the comma bacilli appeared, even to the naked eye, as small colourless bodies. When it was examined microscopically, it showed the surprising phenomenon that the colonies of the comma bacilli had destroyed all the blood corpuscles in a fairly wide circle around them, which even extended far beyond the limit within which the gelatine had been liquefied. Thus it appears that the comma bacilli can exercise a destructive influence on the formed elements of the blood, and most probably on other cells as well."

The first observers to isolate a toxine were Roux and Yersin, who, after filtering a pure culture of Klebs-Löeffler bacilli through porcelain, injected the filtrate into animals and succeeded in producing typical diphtheritic lesions.

This is their own summary of their own work. Proof that the Klebs-Löeffler bacillus is the cause of diphtheria. "Inoculated on the surface of the mucous membrane of various animals pure cultures of this bacillus produce characteristic false membranes and other lesions. When death does not come too rapidly, one observes in animals paralysis resembling those which occur in man. The bacillus of diphtheria does not multiply in the organs; one finds it only at the point of inoculation, and it even disappears completely if the malady be prolonged. Diphtheria is an intoxication caused by a very active poison formed by the microbe at the point where it develops. We have proved that this is so by showing that in pure cultures of the bacillus diphtheriæ there exists a special chemical substance which induced beneath the skins of the animals gives them the disease in the absence of any living microbe. (The best way to separate microbes is by filtration through porcelain.) In a sufficient dose this substance brings on a rapid intoxication with all the symptoms and all the lesions which follow the inoculation of the bacillus itself. Only the false membrane is wanting. Animals which receive feebler doses are often attacked by typical diphtheritic paralysis."

In further researches, Roux and Yersin obtained the toxic body in a solid state by a precipitation with alcohol and phosphate of lime. Chiefly on account of this chemical reaction they were led to consider it as an enzyme, *i.e.*, living ferment. This view was modified by the work of Sidney Martin, to which we now go on.

(To be continued).

From the Gazette's Special Pathologist.

NOTICES.

E. R. M., HASTINGS.—The sputum contains a fair number of tubercle bacilli, which have a tendency to appear in clumps.

PATHOLOGIST.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

The Increase in the Number of Fatal Accidents under Anæsthetics.

DEAR SIR,—In your issue of June 4th are two letters under the above heading, and the latter of the two contains an invitation to attend a demonstration upon anæsthetics at Duke Street, Manchester Square.

Your annotation upon these letters is very much to the point, but I think that you should have pointed out to the unsophisticated student (if there are any such at Guy's) that the address given is a surgical instrument maker's shop.

I have but little doubt that Messrs. Down Bros., Messrs. Meyer & Meltzer, Messrs. Barth & Co., or any of the numerous instrument makers would be most happy to demonstrate the efficacy of their wares to all and sundry; and would prove (to their own satisfaction, at least) that no medical man could pretend to anything like efficiency unless he used a particular pattern of instrument or apparatus, which they would be glad to sell him.

The long and short of this is that the two letters should have appeared in your advertisement pages, and been paid for at current rates. I fear that the GAZETTE has been "had." ANÆSTHETIST.

[We quite agree with "Anæsthetist" concerning the article in question. The letter was carefully considered before insertion, but the cloven hoof of the advertiser was so apparent that we hoped readers of the GAZETTE would accept the opinions therein expressed with all necessary caution.—ED. G.H.G.]

Guy's Hospital Pharmacopœia.

DEAR MR. EDITOR,—In response to Dr. Perry's letter, may I venture to send you one or two ideas for the new Pharmacopœia? The current edition contains undoubtedly the basis of everything in constant use, and I do not think that much can be altered with advantage. It is universally agreed that Bismuth, though expensive, is unequalled for many gastric conditions. While resident medical officer at an institution with a large out-patient department, I found that the following mixture, frequently prescribed by one member of the staff, gave very great relief in the various forms of dyspepsia in women:—

℞ Magnes. Sulph. gr. xl.—xc.
Sp. Chloroformi, ℥x.
Mist. Bismuthi, ad. ℥i.

If the patients were prescribed something else they frequently begged next time to be given the white medicine again. My excuse for sending you the above formula is that the purgative corrects the Bismuth and

also overcomes the constipation that is so frequently present.

Would it not be an advantage to substitute the new Tr. Chloroformi et Morphinæ for the Liq. Morphinæ in the Mist. Bismuthi et Morphinæ? Personally I have found the mixture thus made up to be of great service.

Could not Eucaine be added to the Pharmacopœia? It is most useful in replacing Cocaine—for all but ophthalmic work—on the ground of economy. On the conjunctiva it causes irritation.—Yours sincerely,

Southsea, M. ASTON KEY.

June 8th, 1898.

Appointments.

MEDICAL SCHOOL APPOINTMENTS.

The following appointments have been recommended by the Medical Council and approved by the House Committee:

Clinical Assistants.—Messrs. J. M. Fortescue-Brickdale, H. W. Bruce, J. A. Glover, H. D. Peile, W. J. Lindsay, F. Shufflebotham.

Gynæcological Assistants.—H. T. Hicks (July-August); F. W. Brook, F. E. Walker (August-September); A. H. B. Kirkman (September-October).

Clinical Assistants in the Medical Wards.—Messrs. A. A. Miller (Dr. Pye-Smith); L. H. McGavin (Dr. Taylor): R. H. J. Swan (Dr. Goodhart); H. L. Eason (Dr. Hale White),

Clinical Assistants in the Surgical Wards.—Messrs. W. R. Cazenove (Mr. Lucas); J. G. Taylor (Mr. Golding-Bird); C. D. Outred (Mr. Davies-Colley).

Clinical Assistants in the Medical Out-Patients.—Messrs. S. A. Ruzzak (Dr. Pitt); W. L. Baker (Dr. Shaw); A. R. Thomas (Dr. Washbourn).

Dressers in the Eye Wards.—Messrs. S. A. B. Pennington (August 1st) (Mr. Higgens); J. T. Dunston, F. D. Turner (August 1st) (Mr. Brailey).

Clerks in the Eye Wards.—Messrs. R. Balderston, O. Marriott, H. C. Sturdy, F. E. Hutchinson, N. F. Ticehurst (1st half); W. L. Baker, A. R. Thomas, E. W. S. Rowland, H. N. Clarke (2nd half).

Dressers in the Throat Department.—Messrs. A. H. Carter, A. B. Passmore, T. P. Berry, G. Chetwode Owsley, J. L. Payne, E. R. Row.

Clerk in the Throat Department.—Mr. E. B. Dowsett.

Surgeons' Dressers.—Messrs. H. B. Dismorr, L. C. Martin, A. W. Penrose, C. B. Thomson, F. R. Featherstone, E. W. Goble (Mr. Howse); J. B. C. Brockwell, T. E. Holman, P. H. Ward, T. W. S. Browne, C. E. Hicks, B. W. Moss (Mr. Davies-Colley); C. Edwards, F. O. Stoehr, C. T. Hilton, G. S. Simpson, W. G. Stewart, D. P. Watson (Mr. Lucas); G. N. Meachen, W. B. Secretan, G. M. Brown, W. M. Thomas, R. W. B. Hall, H. M. Hardy (Mr. Golding-Bird).

Assistant Surgeons' Dressers.—Messrs. T. J. Wright, J. F. Northcott, R. C. Mullins, M. A. Alabone (Mr. Jacobson); E. H. Cragg, A. W. Talbot, C. H. Glenn (Mr. Symonds); A. E. Cawston, H. Braund, H. St. A. Alder (Mr. Lane); R. M. Barron, E. Stott, A. H. Davies, J. T. M. McDougall (Mr. Dunn).

Medical Ward Clerks.—Messrs. P. D. Hunter, E. T. Jensen, A. C. Lewis, H. V. Bagshawe, A. Densham, E. A. Miller, E. Cohen, J. C. J. Da Silva, G. Lewin, W. H. Brailey, J. Alison Glover, T. P. Thomas, T. E. Holmes, J. S. Steele Perkins, E. M. Judge, H. B. Foster, T. T. Kelly, D. G. Greenfield, F. J. Felix Jones, F. A. Segreda, R. D. Attwood, J. E. L. Bates, T. R. Beale-Browne, F. G. Cross, W. P. Ker, H. McD. Parrott, E. Shelton Jones, L. E. Stamm, R. Tilbury, J. L. Whatley, J. M. Brydone, E. J. F. Hardenberg.

Surgical Ward Clerks.—Messrs. W. H. Loosely, J. A. Butler, P. W. L. Camps, F. Curtis, D. Forsyth, P. S. Mandy, B. Muir, A. Pearson, H. G. Rashlelgh, E. F. Reeve, J. Evans, K. W. Goadby, G. S. C. Hayes, A. C. Osburn, L. Pern, S. L. Prall, R. S. Roper, F. D. Welch, G. T. Willan, T. B. Fawley, A. D. E. Kennard.

Assistant Physicians' Clerks.—H. B. Carr, (Dr. Pitt); H. A. Higgens, (Dr. Shaw); A. McCabe Dallas, (Dr. Washbourn).

Post-mortem Clerk.—Mr. C. F. Watson, (July-August).

Obstetric Out-Patients' Clerks.—Messrs. A. G. Osborn, W. H. Edwards (2nd half).

Aural Surgeons' Dressers.—Messrs. J. F. Robinson, (July-August); V. T. C. Bent, (September-October).

Dental Surgeons' Dressers.—Messrs. H. M. Berncastle, (July-August); E. G. Goddard, (August-September); F. H. R. Heath, (September-October).

Assistant Surgeons' Clerks.—Messrs. H. Davies-Colley, P. T. Manson (Mr. Jacobson).

CIVIL.

GOLDING-BIRD, C. H., M.B., F.R.C.S., has been appointed an Examiner in Surgery at Cambridge University.

GOUGH, B. B., L.R.C.P. Lond., M.R.C.S., has been appointed House-Surgeon to the Infirmary Burton-on-Trent.

HAYWARD, M. C., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer for the North-West London Hospital.

LAWSON, G. L. L. LAWSON, J.P., M.R.C.P. Edin., M.R.C.S., D.P.H., has been appointed Health Officer for Mullewa, Western Australia.

NICHOLSON, C. R., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House-Surgeon to the St. Leonard's and East Sussex Hospital.

NAVAL AND MILITARY.

The following appointments have been notified by the Admiralty:—

STAFF-SURGEON W. W. PRYN to the *Lion*; SURGEON H. B. MARRIOTT to the *Wildfire*; SURGEON H. G. T. MAJOR to the *Diadem*; SURGEON F. C. STEARN to the *Jackal*.

The Services of SURGEON-CAPTAIN H. AUSTEN-SMITH, M.B., and SURGEON-CAPTAIN G. T. BIRDWOOD, M.D., have been placed temporarily at the disposal of the Government of the North West Provinces and Oudh.

Sport.

Cricket.

GUY'S v. REIGATE.

Played at Honor Oak Park on Saturday, June 4th, when our captain, K. B. Alexander made his first appearance this season, after his unfortunate accident in February last. Winning the toss, Clarke and Wetherell opened our innings on a fairly hard wicket. Both batsmen scored freely until the telegraph showed 50, when Clarke was bowled. Wetherell batted in grand form, and saw the whole team come and go, and thus carried out his bat for an excellent 77.

The last two wickets added a very useful 49 runs, but with the exception of those mentioned, our batting was extremely weak, and none of the others could get into double figures.

Our total, however, proved large enough to secure a victory, as the brothers Nightingale and Neale were the only batsmen to cause us any anxiety. F. Nightingale who went in first, carried his bat throughout the innings.

During the hour left for play, we lost four wickets for 67 runs. Scores:—

GUY'S.			
A. E. Clarke, b Brickett	28		
F. C. Wetherell, not out	77		
K. B. Alexander, b Brickett	0		
K. V. Trubshaw, b Morrison	1	b Nightingale	2
J. M. Brydone, b Morrison	0	c Darling, b Neale	4
M. C. Wetherell, b Morrison	8		
L. Humphry, c Darling, b Brickett	0		
H. Durbridge, run out	0	b Ibbs	26
A. E. Cawston, c Nightingale, b Brickett	5		
G. T. Willan, c Ibbs, b Morrison	16	not out	14
E. Cohen, lbw, b Morrison	12	b Ibbs	19
Extras	2	Extras	2
Total	149	Total	67

REIGATE PRIORY.	
F. Nightingale, not out	42
J. W. Neale, b Clarke	19
R. W. Neale, st Humphry, b F. C Wetherell	7
F. J. Nightingale, b M. C. Wetherell	20
W. Darling, b Trubshaw	8
F. W. S. Brabham, b Trubshaw	1
G. Brickett, b F. C. Wetherell	3
G. G. Windsor, c Durbridge, b F. C. Wetherell	1
R. S. Ibbs, c Cohen, b F. C. Wetherell	6
F. C. Morrison, b F. C. Wetherell	1
C. S. Kirkpatrick, b Clarke	5
Extras	15
Total	128

GUY'S v. BRENTWOOD.

Played at Brentwood on Saturday, June 11th, when Guy's secured their sixth victory this season.

One very satisfactory fact with regard to this match was that all the scoring was not done by one or two men, as has been the case of late, and more than half the team got well into double figures. Trubshaw, besides being top scorer, secured three wickets for eight runs, while Clarke captured four for 34. Scores:—

GUY'S.			
A. E. Clarke, c Heatley, b Cutts			22
F. C. Wetherell, lbw, b Heatley			6
K. V. Trubshaw, c Read, b Crossman			52
J. M. Brydone, c Read, b Crossman			15
K. B. Alexander, c Read, b Crossman			1
M. C. Wetherell, c Claughton, b Crossman			36
L. Humphry, b Cutts			20
H. Durbridge, c Heatley, b Cutts			0
G. T. Willan, c Chalk, b Crossman			33
A. E. Cawston, c Read, b Crossman			1
R. C. Mullins, not out			8
Extras			10
Total			204

BRENTWOOD.			
C. H. Escott, c Alexander, b Clarke	5		
H. C. Mieville, b Clarke	1	not out	16
D. Crossman, b Wetherell	15	st Brydone, b Willan	12
A. E. Heatley, c Brydone, b Trubshaw	26		
J. J. Read, b Wetherell	1	c Trubshaw, b Mullins	0
Cutts, b Clarke	10		
L. Hollebone, lbw, b Trubshaw	1		
Maj. Claughton, not out	11	b Willan	18
H. Quennell, b Trubshaw	0		
J. A. Chalk, b Clarke	0		
Dr. C. Mansell, run out	1	not out	6
Extras	4	Extras	2
Total	75	Total	54

United Hospitals' Rifle Association.

UNITED HOSPITALS v. ROYAL INDIAN ENGINEERING COLLEGE.

The above match was shot on Saturday, June 11th, at Cooper's Hill, the Hospitals winning by 36 points. The following are the scores:—

U. H. R. A.	200 yds.	500 yds.	Total.
T. H. Gandy	21	26	47
A. Pearson	29	30	59
C. de Z. Marshall (capt.)	34	32	66
S. Hodgson	22	30	52
H. C. Jones	28	18	46
N. Carpmael	28	31	59
O. E. Lord	21	21	42
A. de Morgan	26	24	50
Grand Total			421

R. I. E. C.

C. F. Wilkins	28	22	50
A. G. Fleming	22	25	47
G. C. Wood	21	18	39
W. R. Field	24	22	46
Capt. Shields	25	31	56
— Reilly	24	25	49
R. H. Duke	27	27	54
E. Lambton	29	15	44
		Grand Total ...	385

Guy's Hospital Rifle Association.

GUY'S v. WHITGIFT.

The rifle team journeyed to Marden Park to fulfil its first engagement with Whitgift School on June 6th. Guy's won by 54 points, the most noteworthy scores being two 34's at 500 yards, by A. Pearson and H. Stanley-Turner. Scores :—

GUY'S.

	200 yds.	500 yds.	Aggte.
A. Pearson	30	34	64
B. W. Moss	31	26	57
H. Stanley-Turner	16	34	50
O. Travers	27	30	57
N. F. Ticehurst	29	22	51
J. A. Glover	29	29	58
W. B. Secretan	26	27	53
		Total ...	390

WHITGIFT.

	200 yds.	500 yds.	Aggte.
Smith	27	29	54
Atkins	20	22	42
Cantlay	25	24	49
Rensham	26	30	56
Jackson	27	26	53
Whitaker	24	21	49
Herold	14	19	33
		Total ...	336

Count out.

Wood	19	11

Water Polo.

GUY'S v. GRAFTON.

This match was played at Forest Hill on the 7th, and resulted in a draw, two goals all. The game was keenly contested and exciting throughout. Grafton scored first and held the lead till half-time, in the beginning of the second half, Guy's working well together, enabled Payne to score with a good long shot which equalized matters; a little later from a good pass by Edwards, Ash scored a second goal. Grafton retaliated just on time, thus making it a drawn game. Team :—

GUY'S.—E F. Hardenberg (goal); H. Carlow and D. G. Greenfield (backs); J. L. Payne (half-back); J. R. S. Ash, A. C. Edwards and K. Clarke.

Guy's second team played Grafton second team, and this game also resulted in a draw, one goal each. A. C. Edwards scored our goal; Whittington and Wilkes did some useful work.

Guy's Hospital Lawn Tennis Club.

The Kent club scratched, as they were unable to raise a team to meet us at Honor Oak on June 4th.

GUY'S v. HORNSEY.

The Hospital was again beaten by Hornsey, six matches to three, on the Hornsey ground. Each couple won a match.

At a meeting of the U.H.L.T.C., held at St. George's, Monday, June 6th, the following draw was made for the Inter-hospital Cup Competition.

University bye
St. Bart's. ... } Guy's ... }
St. George's ... } London ... }
St. Thomas' bye

We shall meet Bart's., last years' winners, on Monday, June 20th, at 11.30, at Chiswick Park. The second and third rounds will be played on Tuesday and Wednesday, June 21st and 22nd.

Key to Case for Diagnosis on page 258.

AT the post-mortem, no gross lesion was found. The case was at first thought to be one of Laudry's paralysis (acute ascending myelitis), but the diagnosis was ultimately given up. The patient is believed to have suffered from some form of multiple peripheral neuritis, possibly due to ptomaine poisoning.

Marriage.

FRITH—STYLES.—On June 2nd, at the Parish Church, Swanscombe, Kent, by the Rev. W. A. Frith, M.A. Oxon., Rector of Welby, Lincs., father of the bridegroom, assisted by the Rev. F. Aurial Murray, M.A. Oxon., Vicar of St. Peter's, Rickmansworth, and the Rev. Hugh C. Frith, B.A. Cantab., Walter S. Frith, M.B. Cantab., of The Limes, Rickmansworth, to Caroline Elsie, daughter of the late George Gaviller Styles, of Knockall, Greenhithe, Kent.

Death.

FOSTER.—On June 10th, at the British Hospital, Port Said, Franz F. Foster Foster, M.R.C.S., L.R.C.P. Lond., only surviving son of the late Colonel Foster Foster, aged 35. Deeply mourned by his mother and sisters.

ED.—F. E. W.

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Calendar of Coming Events.

July.

Sat. 2.—Messrs. Howse and Jacobson's take-in; Drs., H. Durbridge and C. B. Sells; Cl., J. A. Glover.
G.H.C.C., I., Hornsey, home.
G.H.L.T.C., Weighton, away.
Hos.-Scho.C.C., St. Mary's, away.

Mon. 4.—First part of the Conjoint D.P.H. Exam.

Tues. 5.—Applications to Medical Office for Schedules for 1st Conjoint Exam. to be made out not later than this date.
Final Conjoint Exam. begins.

Wed. 6.—Messrs. Davies-Colley and Symonds' take-in; Drs., H. C. Holden and G. T. Brundrett; Cl., J. M. Fortescue Brickdale.
1.30 p.m., Clinical lecture by Dr. Shaw.
G.H.C.C., II., City of London School, home.

Thur. 7.—G.H.C.U., Address by Rev. W. R. Mowll, M.A.

Fri. 8.—1.30 p.m., Clinical lecture by Mr. Dunn.

Sat. 9.—Hos.-Scho. C.C., Hatcham Athletic, home.

Mon. 11.—Intermediate M.B. Lond. Exam. begins.
2nd part of the Conjoint D.P.H. Exam.

Wed. 13.—Messrs. Lucas and Lane's take-in; Drs., C. H. Brangwin and H. R. H. Denny; Cl., W. J. Lindsey.
1.30 p.m., Clinical lecture by Dr. Shaw.
PRIZE DAY. DISTRIBUTION BY THE RIGHT HON. A. J. BALFOUR, ESQ., M.P.
G.H.L.T.C., Chiswick (5 p.m.), away.

Thur. 14.—G.H.C.U., Address by Rev. T. H. Darlow, M.A.

Fri. 15.—1.30 p.m., Clinical lecture by Mr. Dunn.

Sat. 16.—G.H.C.C., I., Brentwood, home.

Guy's Hospital Gazette,

JULY 2, 1898.

Hepatic Abscess.

CLINICAL LECTURE BY MR. SYMONDS.

May 13th, 1898.

GENTLEMEN,—To-day I am going to draw your attention to two or three cases of hepatic abscess. The first case I will mention is that of a young man, aged twenty-eight. He had been in India, where he enjoyed good health till he embarked for England, when he had dysentery. On arriving home he was much reduced, and soon afterwards was taken ill with pain over the liver. When first seen by Dr. Goodhart he was suffering from acute pain in the right side, localised to the eighth space in the anterior axillary line, but also up the side to the right shoulder. He was in such a bad way that Dr. Goodhart advised immediate operation, considering the pain to be due to hepatic or subdiaphragmatic abscess, or to empyema or pus in the lung. When I arrived at midnight I found the man in a condition of extreme nervous misery; there was localised pain over the eighth space in the axillary line, with great tenderness and an indefinite sense of fulness, which Dr. Goodhart had noticed, and which looked as if it might be due to œdema of the muscles over a collection of pus. In addition to these signs there were some moist sounds to be heard, and there was evidence (Dr. Goodhart said) of lung adhesions, with some compression, and probably some œdema of the lung. The most important point to notice, was the curious puffiness over the eighth and ninth ribs. No doubt this was a sign of great importance, and it was this puffiness which led Dr. Goodhart to send for me. I thought it might be due to a greater muscular development on the right side, but here the acute physician was right, and it had been better for the patient if the suspicion had been acted on. The temperature was normal, the pulse was quiet, so that I was inclined to wait. I had not the advantage then of Dr. Goodhart's presence, he had left word that I was to use my judgment as to the question of operating then or waiting. We met, however, the day after, and went over the case together, and we both decided to wait; the puffiness was less, though the pain in the right side and shoulder continued, but as the patient was a nervous, reticent man, it was difficult to say how much real pain was present. After that, the pain in the right side and shoulder—the presence of pain in the shoulder is a very important point—gradually improved, he put on flesh and was soon able to drive about town in

a hansom. This is an important point, as showing that the shaking did not increase the pain. Well, I thought that his rapid recovery showed that my colleague was wrong and that I was right, but in six weeks the man was again laid up with the pain, though the pulmonary signs had disappeared. We met again over him and found the pain was very intense. We were still uncertain, however, as to the degree of suffering on account of the character of the patient himself. He was a most peculiar man; his brother, who nursed him most devotedly night and day, never received a word of thanks; his mother also he would never speak to, so that you see he was a curious man. I think it an important point to be able to estimate a man's character in a case of this kind. We made a mistake in under-rating the pain, and though the patient grumbled terribly, we hesitated to operate. The recurrence was attributed by the patient to influenza, which had recently attacked several members of the family, but Dr. Collison-Morley, who attended him, thought it had caused the renewal of his old pain. There were no lung symptoms and the liver was not enlarged; the pain in his shoulder was very bad, so bad that he would lie in bed (in one position) all day with hot flannels over his shoulder, and complain most bitterly. We were inclined to think him hysterical, especially as he was so short tempered; for instance, when I went and saw him he never said a word to me, not so much as a "good bye" when I went. As I said before, we were inclined to under-estimate the pain. The question was, what was to be done? We considered two courses were open to us: as the pain persisted without any rise of temperature or quickening of the pulse and the patient still continued poorly and lost flesh, we thought we ought either to aspirate or, as a kind of intermediate course, to apply leeches; we decided not to explore at present, but to apply the leeches. They did not do much good; the patient continued pretty much the same for a couple of months and then was suddenly seized with an acute pain in his right side, and began to expectorate a large quantity of pus. The original view held by Dr. Goodhart was thus confirmed; a hepatic abscess which had formed adhesions to the diaphragm, had perforated it, and burst into the lung and pleura.

If you will look at the diagram on the board, you will see how such an event takes place.

Now, it is generally stated that when a hepatic abscess bursts in this way that the patient spontaneously recovers. In this case the temperature rose, he became very ill, and after ten days I was again called in to see him, and, as a result of our consultation, I arranged to operate next morning and do my best to recover the ground lost largely through my hesitation to explore early. The patient was now, of course, very ill, and, to his credit be it said, bore his suffering in the same silence as before.

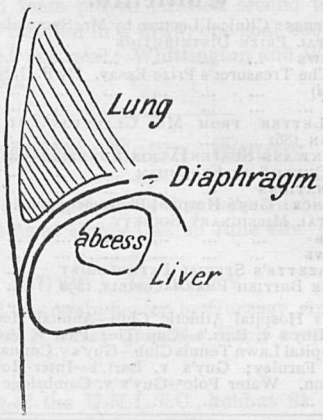


Fig. 1.

The next day I resected a rib, and on opening the pleura found a large collection of pus. The question was whether I had to deal with an empyema or a hepatic abscess, but the moment the pus came out I was quite sure that it was hepatic, for if the pus is at all recent, and comes from the liver, it is thick and of a purple or dark plum colour, very much like the appearance of a dark congested liver. However, to make more certain, I introduced my finger, and at once found the characteristic ragged aperture in the diaphragm. It bled rather freely at first, as these liver abscesses are apt to do. I watched the case for three weeks, but was disappointed about it; he was constantly losing blood, and pus, and I felt sure that the abscess was not properly draining. An opportunity of clearing up my doubts arose in an unexpected way. One day he was seized with violent pain in the epigastrium; in Dr. Goodhart's absence we asked Dr. Shaw to see him. The pain, which was in the median line, was agonising and intense, but his temperature and pulse were normal, and there was no fever, and so it was thought the condition was possibly not a dangerous one, and that the pain was of the nature of a gastralgia: his peculiar temperament again misleading. In a few days, however, in the middle line, under the ensiform cartilage, there appeared a swelling, which increased in size, and which I opened, letting out about half a pint of yellowish pus with no characters

of hepatic abscess, and of which I have never quite understood the origin.

But what was much more important, I took the wished-for opportunity of exploring the liver; I put my finger in the old incision where I had resected the rib, found the opening in the diaphragm, put in a trocar through a space below, and demonstrated the presence of pus; I then tore a large hole in the diaphragm and freely opened the abscess cavity in the liver. The patient made a very rapid recovery and has since gone back to Bombay in perfect health.

Now, this was a case of hepatic abscess from the first. Dr. Goodhart was right, and an early exploration would have saved the man three months' illness; it was evidently an old tropical abscess. I am unable to explain the abscess in the median line; it was certainly not hepatic.

I think the special points in this case are:—

1. The absence of temperature, in which connection you may well compare cerebral abscess.

2. The marked pain in the shoulder.

3. The difficulty of estimating correctly the man's pain. When he got well he was perhaps a little reticent, but always a grateful and nice patient.

This was one case of solitary or tropical abscess of the liver.

We will now pass on to another case. This was a lady of fifty, who was under Mr. Targett and myself in Bright ward. She had lived in the tropics, had travelled in Africa, and had been recently living in British Honduras. She was seen by Dr. Goodhart, who found dulness all over the right side of the chest, and was not certain whether to diagnose empyema or hepatic abscess (but I believe inclined to the latter). As I said, the liver was down and the chest was dull. She was in a hectic condition with fever and sweating; was much emaciated, and evidently in a dangerous condition. I put a needle into the eighth space and drew out pus; it was evident that wherever the pus might have originated from, whether from the abdominal cavity or elsewhere, that at present it was lying close against the chest wall. I have made a diagram on the board to show you the position of the diaphragm (fig. 2). You will notice that the abscess of the liver may so push up the diaphragm as to leave only the space of two ribs of resonance in front; the diaphragm, thus pushed up, is in contact with the ribs. Especially notice that the diaphragm is not only pushed upwards, but also outwards

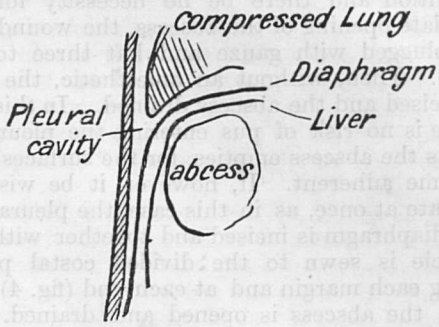
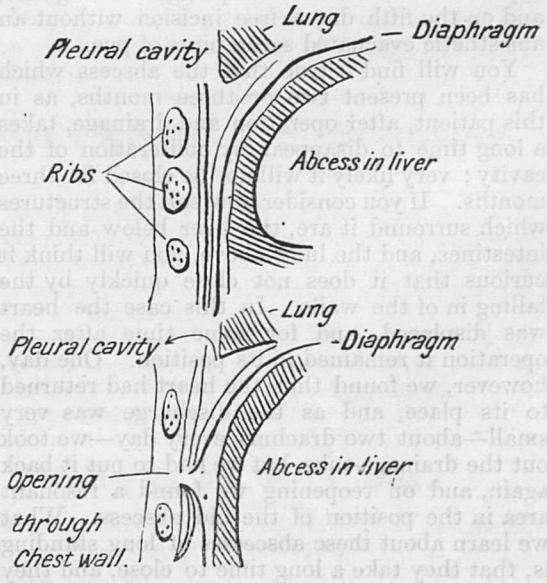


Fig. 2.

as well, so that the pleural cavity is practically obliterated, and thus the lung is pushed out of the way.

Now, if you make an opening through the side, you are in an easy position to deal with the pus, whether it is due to an abscess of the liver, a large hydatid of the liver, or a subdiaphragmatic abscess — the three conditions which raise the diaphragm and cause compression of the lung, and so a dull area.

In dealing with such a case, a good method of operating is the plan I adopted in this case. An incision is made over the rib bounding the space below the puncture. This rib is resected and the pleura opened (fig. 3). The contact of the



Figs. 3 and 4.

diaphragmatic with the costal pleura excludes entry of air. The diaphragm is then incised and the liver exposed. If the patient be in good

condition and there be no necessity for immediate opening of the abscess, the wound may be plugged with gauze and left three to five days. Then, without an anæsthetic, the liver is incised and the abscess drained. In this way there is no risk of pus entering the pleura, or air as the abscess empties, for the surfaces now become adherent. If, however, it be wiser to operate at once, as in this case, the pleura over the diaphragm is incised and together with the muscle is sewn to the divided costal pleura along each margin and at each end (fig. 4), and then the abscess is opened and drained. In the case of a little girl I will refer to later, her condition was a very serious one, and every moment was precious, so I opened directly into the hepatic abscess without preliminary suture. It is to be noted that in hepatic abscess the cavity is a long time collapsing, and therefore, as a rule, the abscess may be drained immediately, the pleural surfaces remaining in contact some time.

Not long ago I had a patient from South Wales who, without any history of residence in the tropics, or of attacks of dysentery, had all the signs of a huge hepatic abscess; there had been a fear expressed that it might be cancer. A puncture between the ribs demonstrated the existence of pus. A rib was excised, the diaphragm divided and the surface of the liver exposed. The wound was plugged with gauze, and on the fifth day a free incision without an anæsthetic evacuated seven pints of pus.

You will find it true that the abscess which has been present two or three months, as in this patient, after operation and drainage, takes a long time to disappear by obliteration of the cavity; very likely it will not be closed for three months. If you consider how soft the structures which surround it are, the liver below and the intestines, and the lung above, you will think it curious that it does not close quickly by the falling in of the walls. In this case the heart was displaced, and for some time after the operation it remained in its position. One day, however, we found that the heart had returned to its place, and as the discharge was very small—about two drachms every day—we took out the drainage-tube, but we had to put it back again, and on reopening we found a resonant area in the position of the old abscess. What we learn about these abscesses of long standing is, that they take a long time to close, and they do so, not by the growth of granulation from the wall of the cavity as in an ordinary abscess, but by the gradual restoration of the surrounding parts to their old position; and this is only possible when the inflammatory new material has been absorbed.

Another important point was that during the progress of the case an area that had formerly been dull became resonant and remained so for several weeks. So that, you see, there are two important points to remember about these cases.

Up to the present we have had three cases of solitary or tropical abscess, all of which got well.

The fourth case died. He was sent from India with a letter to see Dr. Pye-Smith, but his wife thought she knew better, and did not take him to consult a physician. When he was seen at last, two months of valuable time had been lost. I had to open the abscess at once, and the man was so desperately ill that I had no time for suturing, but had to cut right through at once. The patient lingered on for several days but did not recover. I feared the pleura had been infected, but Dr. Pye-Smith found on the third day no evidence of this.

Suppose, however, you wish to get at the abscess from in front, you proceed in the same way. Cut down on the site of the abscess, stuff with gauze down to the surface of the liver and leave for four or five days. At the end of this time adhesions will have formed, and you can let out the pus without any anæsthetic and with perfect safety.

If, however, the case is urgent, you must let out the pus at once, suture when possible or trust to plugging with a large tube, to prevent contagion of the peritoneal cavity.

I would draw your attention to another advantage of operating through the side. If you operate from the front you are likely to come down on the lower border of the abscess, and after the pus has been let out, the liver will slip up under the ribs and render the cavity very difficult to drain. Another interesting case is that of a little girl who died just lately—fourteen days ago, in fact.

She was eight years old. On a Monday she was seized with pain in her right side, and had a temperature of 103°. She did not seem ill, however, and went out on the Tuesday. As the influenza was rife at the time the case was thought to be of this nature. As the pain in the side increased, and she had a temperature of 103°, 104° and 105°, pleuro-pneumonia was diagnosed. Unfortunately some delay took place in recognising the gravity of the case. On Wednesday, the ninth day of illness, she was seen by another physician, who diagnosed an empyema, but next day the signs were so

altered that he hesitated, but on Friday an exploration revealed pus. The pleura was opened, but no pus was evacuated, and the finger entered a sound pleural cavity. A needle driven into the opposite surface again reached pus. Not prepared to go further the operation was abandoned.

I went down on Sunday, and found the entire chest dull and the liver down to the umbilicus; the child was very ill, with high temperature, rapid breathing, and general septicæmia. The diagnosis lay between subdiaphragmatic and hepatic abscess. I thought most probably subdiaphragmatic, for there was a history of acute inflammation of the pleura, and what more likely than extension of the inflammation through the diaphragm? Now an acute hepatic abscess of large size in a child was new to me, and for that reason I thought subdiaphragmatic abscess more probable, for it was difficult to explain the signs as due to empyema, except on the grounds of a diaphragmatic pleurisy at the base of the lung, shut off from the general pleural cavity by adhesions. The heart was pushed over into the left axilla.

I resected the eighth rib in the axillary line, incised the pleura, and then went straight through the diaphragm; the child was so bad, and, owing to the large size of the abscess, the walls of the pleural cavity were in such close apposition, that I thought it would be better to go straight through the diaphragm without delaying to suture it to the chest wall. Directly I incised the abscess, there was a flow of dark purple pus, and I recognised at once that it came from a hepatic abscess; moreover, by introducing my finger, I could feel an irregular, soft, suppurating liver.

Well, as I said just now, hepatic abscess in a child of eight was new to me, and the question arose as to the cause of such a condition. One thought at once of appendicitis, but then there had been no symptoms of it; at the same time I could think of nothing else for a cause. During the night after the operation, the abdomen became very distended, but on the introduction of a flatus tube this all disappeared. The child was no better, and though we opened another abscess and explored the left lobe, nothing availed, and the child died at the end of the third week.

The post-mortem was most interesting. The original operation had gone through the diaphragm into the hepatic abscess, as I thought. On opening the abdomen some flakes of lymph were found, and most interesting of all, the cause of the trouble—a pin, which had caused a perforating appendicitis, to which the abscess of the liver had been secondary. At the time of the first operation, appendicitis, as I have said, crossed my mind, and I said to the other medical man, "would it be wise to explore the appendix?" But he thought we had better not.

I assented, on thinking it over, for the following reason:—If, I argued, it is primarily a case of appendicitis, to which the liver is secondary, it will be no use touching the appendix; it will be better to leave it alone, for in these cases of septic appendicitis, the secondary abscesses of the liver are never solitary, and this turned out to be the case. Post-mortem we found the whole of the right lobe enlarged, so that it nearly touched the second rib. The liver was riddled with abscesses, so that out of several hundreds I had opened two.

An interesting point in the diagnosis was the temperature, which first rose to 104° and 105°, and afterwards came down to 98° and 97·6°, this excursus being repeated daily.

Another point, interesting clinically, is the fact that these patients eat well, as in this case. Thus, the father one morning said that the child must be better as she had slept well and had eaten some sandwiches and a mutton chop. I didn't like to tell him that the case was hopeless.

This is a most exceptional case as regards size of the liver, almost, if not quite, unique, I believe.

Guy's Hospital Prize Distribution.

JULY 13TH, 1898.

ON the occasion of the visit of the Right Hon. A. J. Balfour, M.P., to distribute the prizes to the successful students, it has been decided to invite the guests to join with the governors, the members of the staff, and students in assuming academic costume.

Arrangements have been made with Messrs. Ede & Son to supply robes on receipt of post-card, and robes so ordered may be obtained in the Robing-room provided in the Front Square of the hospital.

Papers by Guy's Men.

Case of Acute Rachitic Curvature of Tibiæ Backwards. By John Poland, F.R.C.S. (illustrated).—*British Medical Journal*, June 11th.

Notes from the Clinic of W. Arbuthnot Lane, M.S.—*Clinical Journal*, June 15th.

On Iodoform in the Treatment of Phthisis. With an Analysis of 123 Cases. By J. W. Russell, M.A., M.D., M.R.C.P.—*Birmingham Medical Review* for June.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

CASES UNDER DR. PYE-SMITH.

PHILIP 21, 29. Tubal nephritis.
22. Rheumatism. Fifteenth attack.
26. Fibroid lung.
30. Aneurysm. Aorta or innominate.
33. Carcinoma ventriculi.
38. Gonorrhœal rheumatism.
40. Continuous pyrexia. ? Cause.

MARY 25. Marasmus. ? Abdominal tuberculosis. Albuminuria.
27. Ulcus ventriculi.
28. Mitral disease. Pleuritic effusion.
29. Rheumatism. Eighth attack. Aortic endocarditis.
33. Mitral disease.

CASES UNDER DR. TAYLOR.

STEPHEN 1. Dilated heart (alcoholic).
3. Acute rheumatism.
4. Phthisis. Tubercular laryngitis.
5 Phthisis. Lardaceous disease.
6. Chorea.
8. Rheumatic fever. Mild recurring attacks.
9. Cirrhosis of liver.
12. Tubercular peritonitis.
15. Locomotor ataxy.
16. Acute nephritis.
18. ? Typhoid.
20. Diabetes.

MARY 38. Erythema nodosum. Erythema multiforme.
40. Distended gall-bladder. Gall-stones in cystic duct. Operation.
42. Mitral stenosis. Enlarged liver.
44. Chronic renal disease. Hypertrophied heart. Albuminuric retinitis.
46. Diarrhœa. ? Tubercular peritonitis.
47. Aortic regurgitation.
48. Phthisis. Right apex.
49. Chlorosis.

CASES UNDER DR. GOODHART.

PHILIP 1. Phthisis. Lardaceous disease. Nephritis. Jacksonian epilepsy.
2, 7. Phthisis.
3. Mitral regurgitation and stenosis.
4. Acute nephritis.
6. Enteric.
12. Gouty arthritis.
13, 19. Chronic tubal nephritis.
14. Gangrenous stomatitis. Broncho-pneumonia.
15. Secondary growth in liver. Primary (?) in sigmoid.
20. Appendicitis.

MARY 13. Chronic tubal nephritis.
14. ? Tubercular peritonitis.
15. Phthisis.
17. Cerebral tumour.
18. Enteric. Relapsing.
21. Fibroid lung. Necrosis of rib.
22. Mitral regurgitation.
24. Malignant disease of peritoneum. ? Primary growth. Ovary.

CASES UNDER DR. HALE WHITE.

STEPHEN 21. Phthisis.
22. Appendicitis.
23. Abdominal aneurysm.
24. Typhoid.
25. Influenza.
26. Pleurisy.
27. Cirrhosis and alcoholic heart.
30. Lymphadenoma.
32. Hæmaturia.
33. Pleurisy.
34. Pneumonia.
35. Aortic stenosis and regurgitation.
36. Acute tubal nephritis.
37. Mediastinitis.
38. Pleurisy.
40. Suppurative peritonitis.

MARY 2. Tuberculous peritonitis.
3. Hysteria.
4. Mitral stenosis and regurgitation.
5. Cirrhosis.
6. Enteric fever.
7. Cerebral tumour.
8. Chronic tubal nephritis.
10. Exophthalmic goitre.
11. Chronic tubal nephritis.
12. Cirrhosis.

In the Surgical Wards.

CASES UNDER MR. HOWSE.

NAAMAN 5. Malignant stricture of œsophagus.
11. Malignant growth of rectum. ? Carcinoma (æt. 24). Inguinal colotomy.
14. Stricture.

CHARITY 7. Vulval cyst. Excised.
10. Separated upper epiphysis of femur.
14. Rectal incontinence. ? Cause.
17. Bronchocele.

CASES UNDER MR. DAVIES-COLLEY.

LUKE 4. Renal calculus. Nephrolithotomy.
8. Hæmorrhoids. Clamp and cautery. Interstitial suppurative nephritis. Death.

LUKE 10. ? Tuberculous knee. Excised.
12. Enlarged prostate. Catheters.
15. Multiple chondromata at epiphyses of hands and feet. Excised.
18. Epithelioma of palate.
21. Femoral aneurysm after digital compression for popliteal aneurysm. Ligature of external iliac.

LYDIA 3. Old tuberculous ankle (left). Syme for same disease on right side.
19. Recurrent sarcoma of orbit (æt. 9).
23. Tuberculous shoulder.

CASES UNDER MR. LUCAS.

JOB 2. Strangulated inguinal hernia. Radical cure.
4. ? Tuberculous kidney.
6. Perineal misplacement of testis.
9. Hypertrophied prostate.
16. Irreducible inguinal hernia.
17. Iliac abscess.
22. Enlarged semi-membranosus bursa.
22. ? Lupus hypertrophicus of face and legs.
23. Enlarged prostate.

LYDIA 11. Moveable kidney. Nephrorraphy.
12. Ankylosis of knee.
13. ? Abdominal tumour.
16. Pre-auricular sebaceous cyst. Excised.

CHARITY 4. Fractured patella. Wired.
21. Melancholia after head injury.
Cot B. Dorsal caries.

ASTLEY COOPER 8. Ruptured urethra.

CASES UNDER MR. GOLDING-BIRD.

LAZARUS 5. Mastoid disease.
12. Vesical pain and hæmaturia. ? Calculus.
20. Testicular tumour. Castration. Showing chronic inflammation of body and epididymis with hæmorrhage into latter.

MARTHA 1. Cut throat.
2. Hydrocele of canal of Nuck. Excised.
4. *Cystic fibro-adenoma of parotid.* Excised.
6. Fractured ribs. Orthopnœa.
7. Lumbar tumour. ? Hydronephrosis.
8. Sacro-iliac disease. Erasion.
9. Fractured patella. Wired.
16. Supracondylar fracture of femur.
Cot A. Scalded throat with some œdema of larynx.

CORNELIUS 9. Depressed compound fracture of vertex. Trephining.
14. Horse-bite in arm. Suppuration. Amputation.

CASES UNDER MR. JACOBSON.

NAAMAN 20. Renal calculus.
21. Recurrent appendicitis.
22. Chronic hæmatocele. Castration.

DORCAS 1. Bronchocele. Excised.
Cot A. Meningocele. Radical cure. Death.

CASE UNDER MR. SYMONDS.

LUKE 17. Malignant disease of œsophagus. Gastrostomy. Death.

MARTHA 13. Deflected septum.
14. Frontal sinus empyema.
15. Sarcoma of lower jaw. Enucleated.

CASES UNDER MR. LANE.

JOB 14. Tuberculous ankylosis of shoulder. Erasion.
15. Sebaceous cyst.

PATIENCE 1. Tuberculous elbow.

CASES UNDER MR. DUNN.

MARTHA 1. Carcinoma mammæ. Excised.
10. Mammary tumour. ? Malignant. Excised.
Cot C. Iliac abscess.

Infection.

THE TREASURER'S PRIZE ESSAY.

By F. O. STOEHR.

(Concluded.)

ABSTRACT OF A PAPER BY SIDNEY MARTIN.

To explain the symptoms of a disease, not only the morphology of the infective agent and the histology of the affected tissues must be examined, but also a chemical investigation must be made. To this we shall probably have to look in the future, not only for an explanation of the symptoms of infective disorders, but for a scientifically grounded method of treatment.

The following are examples of this method of investigation:—

Anthrax.—If the bacillus of anthrax is grown in a medium which resembles the tissues of the body in containing an animal proteid and mineral salts, it digests the proteid with the formation of products resembling chemically those found in peptic and tryptic digestions, with the exception that the final product is an organic base.

This may be shown in a table—

Primary agent		Ferment.	Digestive products.
Peptic digestion.	Living cell.	Pepsin.	Syntonin, hetero-, proto- and deutero-albumose, pepton.
Tryptic digestion.	Living cell.	Trypsin.	Globulin-like body, tryptone (peptone), leucin, tyrosin, bitter body.
Anthrax digestion.	Anthrax bacillus.	Anthrax ferment (hypothetical)	Hetero-, proto- and deutero-albumose, peptone, leucin, tyrosin, alkaloid.

He next looks for the same chemical elements in the tissues of guinea-pigs, sheep, and man which had died from anthrax; these were found in every case in the local lesion, the spleen and the blood, and also excreted in the urine. By injecting the alkaloid and the albumose together and separately, he was able to show that the

albumoses are fever producers, the alkaloid coma producer, and that the alkaloid is the chief agent in causing death.

In guinea-pigs, in which the mixed products are injected subcutaneously, there is at first fever, which may pass off. If a large dose of the alkaloid is given in proportion to the albumose, coma ensues, which may last as long as fifty hours, and at the same time at the seat of inoculation there is a spreading œdema. During this coma there is no high fever, and there may actually be a depression of temperature.

Investigation of the chemical pathology of anthrax gives us therefore a clear idea as to the means by which the bacillus of anthrax acts. When introduced into the body the bacillus begins to digest the proteids. The products of digestion cause a local œdema, containing in solution like other pathological effusions, a large quantity of proteids which are outside the metabolism of the body, and therefore serve as a suitable food for the bacillus. The absorption of the digestive products from the local œdema and other parts of the body in which the bacillus grows, produces symptoms of disease, and it is to the gradual accumulation of the poisonous anthrax base, that stupor ending in coma and death is due.

Diphtheria.—Taking six cases of diphtheria, he subjected the blood, spleen and other organs to a process of treatment by which he separated on the one hand a mixture of proto- and deutero-albumose insoluble in alcohol, and on the other an organic acid insoluble in alcohol. In this treatment the only reagents used were alcohol and water, and the products were never heated to above 40°. The amount of albumose was much greater than that of acid. The chief repository of both substances was the spleen. Thus, whereas the bacillus of anthrax produces albumoses and an organic base, in diphtheria we have albumoses and an acid. The albumoses of diphtheria cannot be distinguished from those of anthrax and peptic digestion by chemical means. Their physiological effect, a test more delicate than any chemical reaction, is the only means by which their specificity can be made evident. The physiological action of the albumoses was tested in rabbits by means of multiple small doses, a course of events which most nearly imitates the natural disease: the results were (1) fever, (2) paralysis of muscles, (3) loss of weight, (4) diarrhœa.

Post-mortem.—The blood coagulated slowly: there was degeneration of peripheral nerves closely resembling or identical with the degeneration of human diphtheria.

The organic acid is also a nerve-poison, producing the same anatomical changes in the nerves, but not nearly so toxic. The *diphtheritic membrane* contains fibrin, a large quantity of hetero-albumose, and traces of proto- and deutero-albumose. The presence of these bodies shows that the membrane is in a state of digestion. The acid body found in the tissues is present, but only in small quantities.

A single dose of extract of diphtheric membrane killed a rabbit with the same symptoms and the same post-mortem appearances as had been found after multiple doses of the extract from the blood. Hence it was concluded "that in the diphtheric membrane there exists a poison precipitated by alcohol which produces exactly the same results as the albumoses found in the blood and spleen of diphtheritic patients." But it is a poison much more virulent, since a single dose produces a result which only multiple doses of albumoses can effect. The toxic effect of the extract of diphtheritic membrane cannot, therefore, be ascribed to the mere presence of a small quantity of albumoses. There is something else which is in all probability of a ferment nature. The extract of diphtheritic membranes also produces a different local action to that of the albumoses, viz., it may produce a local necrosis of the tissues.

Preparation of toxines from pure cultures.—Using as a medium alkali albumen containing no peptone, he found after three or four weeks that the culture contained albumoses and small quantities of organic acid. The physiological effect of these substances was the same as that of the same materials taken from living patients.

CONCLUSIONS.

1. The bacillus of diphtheria forms from proteids products of the same chemical nature as those found in the bodies of patients dead of diphtheria, viz., albumoses and an organic acid.

2. The albumoses formed by the bacillus of diphtheria in artificial cultivation have, in single and multiple doses, the same physiological action as those found in cases of diphtheria in man.

3. The bacillus of diphtheria is, therefore, the primary infective agent in the disease.

The relation of the poison of Roux and Yersin to those just described as present in the bodies of patients suffering from diphtheria is made clear by the fact that a much more virulent poison exists in the membrane than in the bodies of the patient, so that in a table we can bring the chemical pathology of diphtheria into line with that of anthrax.

Diphtheritic digestion.	Primary infective agent—bacillus diphtheriæ.	Secondary infective agent—ferment in membrane.
Products of digestion—Albumoses and an organic acid.		

It is clear from the cases which we have described that the diphtheritic products found in the body do not all come direct from the membrane. In one case, *e.g.*, only small flecks of membrane were found in the larynx, and yet in the body a large quantity of diphtheritic products was discovered. The large amount of albumose and organic acid found in the spleen also shows that something more than a mere absorption from the membrane is going on. There is no reason to suppose that these bodies merely accumulate in the spleen, and their specific physiological action shows that they are foreign to the organism. It is more probable that the ferment absorbed from the membrane digests the more or less stagnating products in that organ, and we know indeed that the spleen contains a proportionately larger

quantity than the blood of bodies formed from proteids, *e.g.*, uric acid, xanthin, etc.

In a case of staphylococcic infective endocarditis, the blood and spleen contained albumoses and an organic acid. Multiple doses produced fever.

In a case of tetanus similar substances were found; the albumoses produced fever, but not typical lesions.

General considerations. — To the four well-known bacteriological rules, Martin now proposes to add another: "The chemical poison must be obtained from the tissues in the natural disease, and products with a similar physiological action must be proved to be formed by the primary infective agent when grown outside the body. This will, no doubt, aid progress in pathology, because in some cases, *e.g.*, cholera and leprosy, animals susceptible to the disease are not forthcoming. It is possible that in some infectious diseases, such as measles, scarlet fever and small-pox, a chemical examination on the lines laid down might aid the discovery of a living *contagium*. The same procedure might be used to decide the question of membranous croup."

Of the great value of Dr. Martin's researches there can be no possible doubt. His work sets at rest all possible doubts as to the organism of diphtheria, and has suggested a method which may be of far-reaching importance.

As to the theory which he here develops, it has been the subject of much criticism, which must now be summarised.

1. We may shortly state the theory thus—"The infection being primarily a local one, the organism at the primary seat of lesion secretes a potent proteolytic enzyme which enters the tissues and blood, and, wherever it comes into contact with them, digests them. The products of this digestion are toxic albumoses and an organic acid, substances which are diffusible, and on being absorbed lead to the morbid changes and disturbances which belong to the diphtheritic infection." With regard to anthrax, he holds that here also the process is essentially one of digestion, though in this case he cannot point to any secondary infective agent, *i.e.*, enzyme, such as the poison found in the diphtheritic membrane.

The first objection to be brought against this view is that the proteolytic action of the supposed enzyme in the membrane has never been demonstrated. In the absence of such a demonstration why may we not assume that the supposed enzyme is the true toxin formed at the same time as the albumoses and precipitated with them by alcohol? This is to suppose that when Martin supposed himself to be causing diphtheria by albumoses, he was in reality causing it by means of toxin adherent to the albumoses.

2. Albumoses are found not only in diphtheria, but also in tetanus. In tetanus, however, they are certainly not the toxin.

3. Conversely, many pathogenic bacteria do not produce albumoses, but other albuminous or albuminoid substances which are toxic. It is true that Martin only asserted his theory in the case of diphtheria and anthrax, but if the assumption of a digestive process is necessary in these diseases, why should it not be so in others more or less allied to them?

4. Kanthack and others have shown that in fatal cases of diphtheria, particularly after tracheotomy, bacilli are frequently found in the lungs, spleen, and other organs, though not in such quantities as in the membrane. Hence the poison of the spleen may be less active than that of the membrane, not because it is generically different, but simply because it is in smaller quantity.

5. Uschinsky and Buchner, growing tetanus and diphtheria bacilli on a non-albuminous culture ground, have succeeded in obtaining specific poisons, which, though "allied to albuminoid substances," were not proteids; in fact, they could not be classified or defined except by their actions. They, therefore, regard the toxine, not as formed by the breaking down of albuminous substance by means of a ferment, but as built up in the bodies of the bacilli by the vital activity of the bacterial cell; for it is the property of a ferment always to break down; of a living cell to build up. As to the action of these toxins, they may or may not be fermentative. Buchner himself thinks they are not, because he finds that within certain limits the rapidity and intensity of the effect produced vary with the dose given. On the other hand, it is found (*a*) that the minutest doses may produce fatal results, and (*b*) that in some cases injection of the poison is followed by a latent period, and this again by an outbreak of acute symptoms.

6. Brieger and Kohn are said to have isolated the toxin of tetanus purified from all albuminous and all proteid substances.

The general conclusion is that bacteria undoubtedly act by means of toxins, but as to the mode in which they form these toxins we know very little. They may be formed in the bodies of the bacteria and afterwards excreted, or they may be formed by means of ferments which the bacteria secrete. Dr. Klein thinks they are formed in both ways. As to their nature, it has been thought that they are albumoses, or proteid or albuminoid bodies of some sort or other, but it seems more probable that they are not, and if not, nobody knows what they are. As to their mode of action, this, again may be that of a ferment or it may not.

Let us flee from this fearsome subject lest worse entanglements involve us.

The arguments in favour of the bacterial origin of infective disease have been stated and more or less discussed. It remains to be pointed out that there is another side to the question. Every animal is more or less resistant to infection, so that it is doubtful if a single organism would ever suffice to produce a disease. Thus there is in every case an inter-action between the infecting organism and the infected tissues, and the result depends on the sum total of the characters of each. We

have therefore to consider what circumstances affect each side of the reaction.

On the side of the organism we have :—

1. Its virulence. Although this quality cannot as yet be defined, except in terms of its results, yet there is no manner of doubt that it is a quality of varying intensity. The methods by which virulence can be modified need not be stated here, but it is worth noticing that the quality is, in some cases at least, relative to the species of animal infected; *e.g.*, it is said that streptococci, on being inoculated through a series of mice, became more virulent for mice, but less so for rabbits.

2. The number of organisms which enter the body. This is too obvious to need illustration.

3. The path of infection. Thus, subcutaneous injection of staphylococci into a rabbit may cause a local abscess, while injection of the same member of the same organism direct into a vein will cause pyæmia.

On the side of the subject of infection we have (A) physical condition, *e.g.* :—

1. The reaction of the tissues. Thus, organisms which cannot stand in acid medium die in the stomach. For this reason men are supposed to be immune to cholera so long as their stomachs contain normal gastric juice.

2. The gastric environment which the tissues offer to the organisms. This tetanus bacillus, being anærobic, can only survive in deep wounds from which the air is excluded.

3. Temperature.

A neat experiment of Pasteur illustrates this influence, and at the same time, its insufficiency as a complete explanation. This experiment will be found quoted with high approval by Professor Tyndall in his introduction to Lady Claude Hamilton's translation of the "Louis Pasteur, Histoire d'un Savant par un Ignorant." The Professor's name and his enthusiasm induced me to copy the quotation, which I now regret. For when one comes to think of it, there are two factors to be considered: (*a*) The fowl's temperature; (*b*) It's vital resistance. It can easily be maintained that the temperature as such is ineffective, but only as injuring the fowl's vitality. Further, it has been shown by Koch that sparrows, which have the same temperature as fowls, are not immune.

Why should birds enjoy the immunity established by Koch? Here is the answer. The temperature which prohibits multiplicity of the bacilli of anthrax in effusions is 44°. The temperature of the blood of birds is from 41° to 42°. It is therefore close to the prohibitory temperature. But then the blood globules of a living fowl are sure to offer a certain resistance to any attempt to deprive them of their life, a resistance not experienced in an effusion. May not this resistance, added to the high temperature of the fowl, suffice to place it beyond the power of the parasite? Experiment alone will answer this question. Pasteur made the experiment. By placing its feet in cold water he lowered the temperature of a fowl to 37° or 38°. He inoculated the fowl thus chilled with the spleen fever parasite and in twenty-four hours it was dead. The argument was clinched by inoculating a chilled fowl, permitting the fever to come to a head, and then removing the fowl, wrapped in cotton wool, to a chamber with a temperature of 35°. The strength of the patient returned as the career of the parasite was brought to an end, and in a few hours health was restored.

(B) The purely physical condition of the tissues of the animal has an undoubted influence in determining the result of infection. But after making abstraction of all the physical conditions we can think of, we are left with conditions which, perhaps only for want of knowledge, we must call vital. It follows that something must be said about immunity and predisposition.

Immunity is either natural or acquired. Acquired immunity is (*a*) non-specific; (*b*) specific.

(A) The first man to artificially immunise animals was Dr. Wooldridge, who protected rabbits from anthrax by previous injection of an extract of thymus gland. Other substances have been found to produce similar effects in different animals.

Subsequent investigators have shown that immunity so obtained is not specific, *i.e.*, the protection is more or less against bacterial infection in general, not against one disease only. It has also been shown that the serum of an animal so immunised has no protective action on another animal.

(B) Specific immunity. The practical aspects of this subject have lately been discussed before the Physical Society by Mr. Douglas Turner. It is unnecessary to go again into a matter which you have already heard most ably treated. Therefore only a summary is given here for the sake of completeness.

Animals may be artifically immunised in several ways.

1. By recovery from disease. The immunity so gained is of varying duration, according to the disease, *e.g.*, two attacks of syphilis in a lifetime rarely occur. Two or more attacks of pneumonia are common.

2. By the injection of gradually increasing doses of living bacteria. This may be done either by beginning with attenuated organisms, or with a very small dose of virulent organisms.

3. By injection of gradually increasing doses of toxines.

In all these cases immunity is gained after an active struggle with the disease. Hence Ehrlich has given to the immunity so acquired the name of active immunity.

N.B.—That active immunity may be conferred either by the microbes or by their toxines, but in either case the immune animal is resistant to both microbes and toxines.

4. Passive immunity is gained by the injection of the serum of an animal previously actively immunised in one of the ways mentioned above. (In this case it is noteworthy that the serum of an animal immunised by injection of microbes produces its effect by preventing the increase of microbes in the tissues, but does not confer immunity against the toxines. On the other hand the serum of an animal immunised by toxines

protects against toxines and also prevents or enables the tissues to prevent the multiplication of microbes.)

Theories of acquired immunity. The first which we need to consider is Metschnikoff's theory of phagocytosis. This theory, which is too well known to need description, certainly contains much truth. There is no manner of doubt that leucocytes do invaginate and absorb bacteria, and in so doing probably resist disease. But the theory is inadequate at any time in its original form to account for immunity and against toxines. To account for this Behring and his followers have developed the so called humpral theory. This starts from the fact first observed in 1884, that the normal tissue fluids, and especially the blood, possess marked antimicrobic properties. This observation belongs more properly to the consideration of natural immunity. Nevertheless it served as a starting point, leading enquirers to look on the fluid constituents of the blood as possessing some chemical antimicrobic action.

Behring, however, soon showed that the action of the serum of an artificially immunised animal is something different from the natural action of the blood; for (1) the serum of a hen, which is naturally immune against tetanus, has no protective action when injected into other animals. (2) The serum of an immunised animal has no bactericidal properties outside the body, indeed cultures may be grown on it. On the other hand, fresh blood is more strongly bactericidal immediately after its removal from the body than while still circulating. (3) Further, the serum of an artificially immunised animal is specific, while fresh blood is not so.

We must therefore assume that the blood of an actively immunised animal contains substances due to the specific action of the bacteria or their products. What these substances are we do not know, but it seems safe to say that they are not ferments, because (1) their power is not destroyed by heating, (2) the amount of immunity conferred is proportional to the dose given.

As to their action, it is not directly on the microbes since microbes can be grown on the serum. It is further asserted that they do not act as a chemical antidote to the toxines. This assertion is based on the observation that a mixture of toxine and antitoxine harmless to one animal may cause disease in another. It is maintained that such a mixture as that of an acid and an alkali if neutral to one test is neutral to any test. But this argument cannot be sound. The mixture may be neutral to grosser tests and not to more delicate ones. It has, however, eminent supporters. A seductive way of putting it is this– a chemical reaction is distinguished by its precision and certainty. This reaction is not precise or certain, therefore it is not chemical.

The view held most commonly as to the action of the antitoxine or antimicrobic sera is that in some unknown way they call into existence in the tissues an increased power of resisting the toxines or of producing substances antagonistic to the microbes, or both.

As to the origin of the antitoxines, the only thing decisively proved is that they are formed not by the bacteria but by the tissues of the immune animal. This has been proved by bleeding a horse whose serum had antitoxinic properties. A short time afterwards the horse was bled again; the antitoxic value of its serum was not diminished; but no fresh bacteria or toxines had been injected. Obviously the antitoxine had been found in the horse independently of bacteria.

Natural immunity. — This may be either racial, hereditary, and probably developed by natural selection, or else personal peculiar to the individual and not necessarily inherited by him or from him. Of its nature hardly anything is known.

Metschnikoff attributed it to phagocytosis, but the objections brought against his theory in the case of acquired immunity hold good here also. Others have thought that it must be due to the antimicrobic power of the natural serum also referred to above. To this view there are serious objections: (1) the degree of bactericidal power of the blood does not vary with the degree of natural immunity of the animal; (2) in any case, its action is far too weak to account for immunity; (3) it does not explain natural immunity against toxines.

In the absence of further knowledge we must suppose natural immunity to be a vital property of the cells, but this in truth is all we can say about it.

Predisposition is the opposite of immunity. There is therefore obviously a natural predisposition which, like the corresponding immunity, may be racial or personal. In the same way the racial predisposition is *ex-hypothesi* inherited, and the personal is not necessarily so. Of the nature and causes of natural predisposition I have been unable to discover anything more.

A non-specific predisposition may be given to an animal in several ways. Dr. Kanthack divides these into three groups, viz.:—

1. General interferences, *e.g.*, starvation, loss of blood, fatigue, unsuitable diet, or exposure to heat, cold, or moisture.

2. Special interferences, such as the removal of certain organs. Thus pigeons, after removal of the pancreas, after recovery from the operation, are said to remain less resistant to anthrax.

3. Inoculation along with the bacteria of some other bacteria, or their products, or of some other poison. *e.g.*, certain animals can resist the bacillus of tetanus by itself, but not if there be injected along with it the bacillus prodigiosis, an organism not otherwise pathogenic (It is interesting to note that in some cases bacteria inoculated together seem to cancel each other's effects), *i.e.*, the one produces artificial immunity against the other.

The most interesting point about predisposition is that in the most crucial case of tuberculosis certain writers, among whom the most prominent is Baumgarten, have in a certain sense denied its existence. The arguments on this question are worth setting out, both because of their intrinsic interest, and also because the subject, not in itself difficult to understand, has been made difficult by the lawyer-like arguing of both sides. That

is to say, that in all the writing on the subject which I have come across each side has avoided definitions and made the tacit or expressed assumption that the other man is a fool.

Baumgarten's position is shortly this: Before the bacterial origin of tubercle was suspected, tuberculosis had been explained as cancer, sometimes is now, as an inheritable tendency of the cells to proliferate and form caseous nodules. After the contagious nature of the disease had been established, pathologists shared their position, but only to this extent, that while admitting the necessity of contagion, they further postulated a specific inheritable predisposition. Baumgarten now asks, what is the evidence for this predisposition? Is it not merely a way of saying that infection cannot take place unless infection is possible? The obvious answer is that the inheritance of a "scrofulosa diathesia," *i.e.*, a predisposition to tuberculosis is notorious. To this Baumgarten answers:—(1) Observations have proved congenital tuberculosis, though not common in man, is undoubtedly found. In animals more susceptible than man it occurs fairly frequently. (2) In a series of experiments on susceptible animals, Baumgarten established beyond dispute the possibility of intra-uterine infection. (3) It is admitted that the usual path of intra-uterine tuberculous infection is by inhalation.

How are we to account for the observed fact that phthisis in children is comparatively rare, while strumous disease of bones, joints, and lymphatic glands is extremely common without any disease in the lungs.

To these arguments it is no answer to point, as Kanthack does, to experiments which have established the possibility of making an artificial non-specified predisposition in animals, nor to the diminution in phthisis which is associated with improved general health, for the predisposition in question is specific and natural.

The following arguments are more to the purpose—

1. Can intra-uterine infection account for the notorious fact that children of tuberculous parents, though not tuberculous at birth, become so ten or twenty years afterwards?

2. If Baumgarten wished to establish a parallel between man and animal, he should have experimented, not with susceptible animals, *i.e.*, animals in which the embryo already has a natural racial inherited predisposition, but with animals comparatively unsusceptible. If in these he had succeeded in frequently producing congenital disease, he might have argued that congenital disease frequently occurs in man.

3. As to the frequency of strumous bones and glands in children, Flügge suggests either that infection may have taken place through unnoticed wounds, or that these parts in children are "physiologically predisposed."

Baumgarten rejoins—

The tubercle bacilli may lie for a long time latent in the tissues. Thus, in chickens born of a tuberculous hen, no symptoms have been noticed for weeks or months. At last some disturbance in the general health or other unknown condition may give the organisms a chance of developing and producing the disease.

To this the opponents: A latency of weeks or months in chickens is poor experimental evidence for a latency of years in men.

This is the argument so far as I can trace it. At the end of his paper Baumgarten promises a similar discussion of other diseases. It would be interesting to know his views on the acute periostitis and osteomyelitis of children.

Is this also due to intra-uterine infection? Or if septic cocci can pass through the system and produce no symptoms until they reach the bones of the leg, then why not the bacillus of tubercle?

Conclusion.—To science there is no conclusion.

In all scientific work, even the most triumphant, the end is only the beginning of a deeper research. Hence, if this essay be charged with ending in doubt, it can reply unabashed that its object was not to answer questions, but to suggest them. Our positive conclusions are indeed few.

Certain diseases have been shown not to occur except in presence of bacteria, but as to what other conditions are necessary or antagonistic—how the bacteria produce the disease, how they are prevented from producing it, why they produce it in some species, in some individuals, and in certain conditions of the individuals, or again, why they are in some circumstances more capable of producing disease than in others—most of this is still to be discovered.

And now we may develope more fully the difficulty in giving even a formal definition of infection. If one says that infection is complete when the bacilli are in contact with the mucous membranes, then perfectly healthy men are often infected with pneumonia. If one says that the bacilli must enter the tissues, then diphtheria and cholera are not infections. If one says that they must multiply in the tissues, then tetanus is scarcely an infection. If one says that they must produce disease, then infection may be prevented by giving antitoxines after infection has taken place.

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Sidney Martin. British Medical Journal. 1892.
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The rest of the paper has mostly been stolen from the first volume of Clifford Allbutt, chiefly from Dr. Kanthack's article on the General Pathology of Infection. Other works used were—

Muir & Ritchie's Bacteriology.
Bacteria and their Products. By G. Sims Woodhead.
Last edition of Die Micro-organismen. Edited by "Flügge."

Passim.

BY this time all Students will have had the opportunity of obtaining invitation cards for Prize Day, July 13th, on which day the Right Hon. A. J. Balfour is to visit the Hospital and distribute the medals and prizes. It will be noticed, however, that the invitation is worded so as not actually to include admission to the distribution, as it is not expected that anything like all of the expected guests will be able to find room in the Theatre of the New Buildings. The greatest number of people that the Theatre is capable of holding is, we believe, 500, and, given a fine day, it is expected that many more than that number will be present in the Hospital grounds. The wards, museums and laboratories will, no doubt, prove capable and attractive substitutes for the crowded formalities of the distribution ceremony.

TALKING of prize-giving reminds us that we have not yet had an opportunity of congratulating William Tayler Milton on his achieving the "double event," namely the Treasurer's Gold Medal for Clinical Medicine and the Bredin Prize for Clinical Study. Such accomplishments are indeed things to be proud of, and though not unexpected, add yet more to the lustre of the winner's already brilliant reputation. As regards the Surgery Medal, we are not in the position to congratulate the winner of that trophy.

THE result of the Cricket Cup Tie against Bart.'s a fortnight ago put an abrupt end to our hopes of retaining the trophy for another year. We were pretty badly beaten, as will be seen on reference to the score, by a team decidedly strong in batting, but apparently not possessing anything very terrible in the way of bowling. Most of our men made some runs, and the mistake seems to have been that they would not be content to settle down and play a steady game, but directly double figures were obtained, reckless play threw the wickets away, which was a pity. However, it would have wanted a good many more runs to have made the game safe against such a scoring team as Bart.'s possess this year, and we congratulate them on the result, but anticipate a much closer fight between them and University before the destination of the Cup is finally decided.

THE Athletic Club held what, on the whole, may be regarded as a successful meeting last Wednesday week, down at Honour Oak Park. The weather was beautifully fine, but a strong wind that blew right up the course militated against fast times. The ground itself, though a trifle hard for the competitors, from a spectator's point of view was perfect, and the brilliant show of pretty dresses added greatly to the attractiveness of the scene; while the presence of several members of the Staff, including, of course, the club's president, Mr. Lucas, added becoming dignity to the proceedings. The efforts of the joint secretaries to keep the events up to time, and the presence of Mrs. Cosmo Bonsor, who played the chief part in the prize distribution, were no mean factors to the success of the meeting.

ONE thing, however, we must growl about, and that is the poorness of the fields, and that, notwithstanding the fact that all the events were, as they always have been, handicaps. Fancy three men turning out in the three miles, only ten for the hundred yards, six for the mile, four couplets for the three-legged race, and correspondingly poor numbers for the other events. It seems to us that the Club will seriously have to consider next year the advisability of going to the expense of buying valuable prizes for such poor competition, and of even printing a programme. The names could well be written up on the blackboard. It was thought when the committee decided to hold the meeting at so convenient a spot as the Clubs' Union Grounds, instead of at far away Stamford Bridge, that the increased interest in the meeting would be marked. Instead of which it has been just the reverse. It is, we are sure, a keen disappointment to the President, who has always taken such a deep interest in the welfare of the club, to notice how the men are neglecting their opportunities, and failing to give their support to such a worthy object.

IT certainly shows a distinct lack of keenness, especially on the part of those men who are in their first years at the hospital—for the senior men cannot, obviously, devote as much time as the junior ones to sport and recreation—and there is no excuse whatever for men until they become full dressers, and even then the energetic can always manage to find time for a moderate amount of outdoor exercise. No one can accuse our Staff of standing in the way of men getting reasonable recreation, for they have

always been most anxious to support, by all the means in their power, the athletics of the hospital, and we can be sure that they would not do so if they thought that the men's work would suffer because of it.

AND the result of it all is that the team to represent Guy's at the Inter-Hospital Sports is a jolly poor one and unworthy of our reputation at that important meeting. Men have had to be called upon who have been unable to devote the necessary time to getting really fit—and the longer one is at the hospital the harder it is to get into condition—and Sime is the only one who stands any really good chance of putting any event to the credit of Guy's. It speaks very highly indeed for those men who, with no prospect of success in view, have yet been steadily training and intend to do their best on the day for the reputation of their hospital.

WE have been asked to announce that the Imperial Life Insurance Company has received a donation of 1s. from Dr. W. H. Paterson, of Grantham, in aid of the Re-endowment Fund. It should be said in explanation that permission was given to the above company to reprint Dr. Pye-Smith's Life Assurance Lecture (published last November), and on the cover of the little pamphlet they invited shilling subscriptions to the Fund mentioned, with the above solitary result. Our best respects to Dr. Paterson—as a man with a conscience.

THE two snap-shots of the sports' meeting were kindly taken for us by Mr. T. M. Walker. The first, showing the pavilion with its new verandah, is interesting, as showing the much improved appearance of the building since Dr. Pye-Smith's generous gift was placed in position. Though the figures of the spectators are rather small for recognition, yet that of Mr. Lucas on the left and the Surgical Registrar on the extreme right can easily be made out on the negative.

THE Presidents of the Physical Society, through their secretary, Mr. J. H. Targett, invite communications from men willing to read papers before the Society during the course of the next winter session.

THE attempts of the lay press to report correctly technical phrases and expressions, are absurdly unsuccessful. Everyone heard of the "changed stroke breathing" at the time of Mr. Gladstone's illness, and a day or two ago we struck another funny one in an evening paper, in the report of an inquest at the London Hospital on a case of lead-poisoning. The poor house-surgeon (*not* physician) made the astounding remark that "at the post-mortem examination, evidence of blue lime was found." Fancy not finding it before the autopsy was made.

THE fac-simile of the late Mr. Gladstone's letter to the then Treasurer, Mr. Turner, which we print in another column, is interesting at this time of the coming visit of the present leader of the House of Commons to our hospital. It will be seen that Mr. Gladstone was asked to come and give the inaugural address to the students, which at that time—in the sixties—used to be given at the commencement of the winter session, and in place of which we now have the opening meeting of the Physical Society. Mr. Gladstone, however, with that conscientiousness so characteristic of the man, was obliged to refuse the invitation.

THE Past v. Present (so-called) cricket match was a great success, especially the dinner afterwards, when the combined tennis and cricket teams spent a most enjoyable evening in the College Library. Dr. Brailey was in great form, and it required all the efforts of such noted strategists as Mr. Lane and Dr. Washbourn to uphold the reputation of what some derisively call the "sister" game. It would not do to attempt to retail the many humorous efforts of the various speakers, but among the few more serious remarks that of Dr. Goodall's advocating a more satisfactory arrangement of the Past and Present matches will, it is hoped, not be forgotten when next season comes round.

THE assessors of the Pakes Memorial Prize stated that while Surgeon-Captain F. Smith must be considered the successful competitor, the essay contributed by Staff-Surgeon W. W. Pryn, R.N., was of great merit. The subject was the Etiology, Prevalence and Prevention of Diphtheria.

THE next examination of candidates for commissions in the Army Medical Staff will commence on August 5th. The latest date for making applications—which should be addressed to the Director-General—is July 27th. The number of commissions to be offered is thirty-nine.

11 D St
Apr 12. 62

My dear Sir

As far as my disposition goes it would be every way favourable to your request but I should be sorry to place crude and shallow thoughts before the Students of Guy's Hospital, & it is out of real respect for them & for the task you propose to me that I must report myself unable to enter into the engagement while I am charged with my present responsibilities

I remain
Faithfully yours
W. Gladstone

Mr. Turner Esq

THE WILLS LIBRARY GUY'S HOSPITAL

FAC-SIMILE LETTER FROM MR. GLADSTONE TO MR. TURNER IN 1862. (*Vide* p. 290).

Re-Endowment & Sustentation Funds.

Money comes in just now in so leisurely a fashion that much to our regret there does not exist the material to keep this column going each fortnight. We can, however, report some substantial progress since we last wrote. The Re-endowment Fund now stands at £224,500; two principal additions being chiefly responsible for the income. £6,000 has been received under the Will of the late Mrs. Ellen Henrietta Harris, and there is a prospect of another considerable sum coming from the same source at some future time. This splendid legacy is due to the influence of Dr. W. E. Audland, of Wellingborough, whom it is needless to add is an old Guy's man. We trust and have hope that time will prove many others to have done likewise. It is thus that the hospital will secure its re-endowment.

The other no less munificent addition to the fund was £5,000 Railway Debenture Stock, from a gentleman who imposed the condition that his name should not be disclosed. It is not the first substantial benefit the hospital has received at his hands, and we rejoice to add that his great interest in the institution's welfare promises to be maintained.

£500, less legacy duty, has just been received under the Will of the late Mr. Thomas Garton, of Clapham. It is becoming clear that the appeal of 1895-96 stimulated benevolent testators to consider Guy's Hospital.

To what extent, however, this may be so is quite problematical, and whatever of good fortune the future may hold does not relieve the authorities from the immense task of finding money enough to meet current outgoings. These at the present time are exceptionally heavy, and increased support is urgently required for the Sustentation Fund. Death and changes of fortune make constant depletions in the list of annual subscribers, and it is very difficult in quiet times to fill the vacancies thus caused. We would earnestly appeal to our readers, not already subscribers, to do what they can in this respect. There are not many but could afford an annual subscription of a guinea, or more, and they might easily influence others to send yearly contributions. A vigorous effort must now be made to secure another £2,000 per annum in annual subscriptions.

The Earl of Leven and Melville has contributed £500 towards the Special Fund for building the new Nurses' Home. This fund now amounts to £22,500.

It will have been observed in the public press that a proposition for a memorial to Mr. Gladstone at Guy's Hospital is engaging the attention of the Memorial Committee. Of the appropriateness of commemorating Mr. Gladstone's memory in an institution with which he had been so long connected and for which he has done so much, there can be no question, and in any case the idea should not fail of fulfilment, but we understand that the desirability of any movement on the part of the Hospital in this direction will not be considered until the decision of the National Memorial Committee is known.

"The Rose Queen" at Sydenham.

An original comedy opera with the above title, written by the Misses Maggie and Stella Henderson, and composed by Mr. Balfour Adamson, was produced at the Sydenham Public Hall on June 23rd, the proceeds of the performance being devoted to the Re-endowment fund of this hospital. The story of the opera is cast in familiar lines, the scene opening with a village fête, with the usual assemblage of village maidens and rustic swains. In the course of the first act we are introduced to our old friends—the young squire, in love with the village maiden of doubtful paternity; the wicked squire (deceased); the old nurse, entrusted with the secret of the heroine's birth; the bold, bad, attractive gipsy girl, setting her cap at the squire; a comic beadle; comic countrymen, and other companions of our childhood. All these personages are assembled for the crowning of the "Rose Queen," the chosen maid being, of course, the heroine of doubtful paternity aforesaid. This ceremony practically furnishes the material of the first act, which concludes in orthodox fashion with a country dance.

In the second act the heroine is found to be the rightful heiress, and marries the young squire (thus keeping the money in the family); the bold gipsy is discomfited, and has to content herself with the hitherto despised village apothecary! Every Jack has his Jill; and all live happily ever afterwards.

We wish we could say that the smartness of the libretto atoned for the triteness of the plot, but we cannot honestly say that this is the case, the dialogue being throughout devoid of wit and frequently irrelevant.

In considering the music, let us say at once that it is throughout careful and musicianly, worthy of a very much better libretto. The opera starts well with an interesting and well-written overture, which we should like to hear again, followed by an appropriately cheerful and melodious opening chorus. From this point onwards to the end of the first act we think that Mr. Adamson has taken himself somewhat too seriously, the result being that the general effect of the first act is distinctly dull. The second is musically far the better, and contains several most agreeable items, notably a song and chorus, in waltz and minuet time, for Sue Babberley (Miss Grossmith), and a duet and dance for Jake (Mr. Charles Moore) and Dame Hannah (Miss Marie Boielle).

The performance was throughout excellent, the principals, without exception, singing and acting admirably. Miss Stella Henderson, as Joan Romany, the gipsy, gave one of the very best amateur performances we

have ever seen, singing and acting with real dramatic power and expression; while in Miss Amy Grossmith the composer was fortunate in finding a thoroughly finished and accomplished singer who did the fullest justice to the music entrusted her. Miss Marie Boielle, as Dame Hannah, had little to do, but did that little excellently.

Of the gentlemen, Mr. Aubrey Prust, as the hero, has a good tenor, which he fully knows how to use, and acted naturally and well. Mr. Woodlock is also a good singer, and made the most of a dramatically thankless part. Mr. Boielle worked hard to make bricks without straw, and succeeded in the difficult task of extracting some fun out of the part of the beadle. It was a pity to see so good a comedian wasted, and he has our sincere condolences and congratulations. As it was, by far the funniest figures in the performance were the comic countrymen of Messrs. Morgan and Cumming, who were really humorous, and did much to retrieve the first act from the threatening gloom. The chorus looked and acted well and sang fairly, their management and drilling reflecting the greatest credit on the stage management, which was throughout admirable. The scenery and appointments were all exceptionally good, and last, but not least, the orchestra deserves great praise for its share of the work, the music being performed practically without a hitch, under the direction of the composer.

In conclusion, we heartily thank those concerned, on behalf of the hospital, for the kindness with which they have devoted themselves and their work to our benefit. We trust we have not been considered unduly severe; in extenuation we can only say that there was so much good that it would be the very worst compliment to the authors to gloss over what we consider their faults. They have done good work, and we are sure that in the future they can give us something much better.

Prize Examinations.

TREASURER'S GOLD MEDAL FOR CLINICAL MEDICINE.—The Medal has been awarded to Candidate No. 3, Mr. William T. Milton.

TREASURER'S GOLD MEDAL FOR CLINICAL SURGERY.—The Medal has been awarded to Candidate No. 2, Mr. F. E. Walker. Candidate No. 6, Mr. P. Turner, Proxime Accessit.

RICHARD BREDIN PRIZE FOR CLINICAL STUDY.—The Prize has been awarded to Mr. William T. Milton.

DENTAL SCHOOL PRIZES.

PRIZE FOR PRACTICAL DENTISTRY.—Mr. P. S. Campkin, Prize £10. Mr. J. S. Farnfield and Mr. S. H. Olver, equal Certificates.

FIRST YEAR'S PRIZE.—Mr. F. Warlow, Prize £10. Mr. H. T. Campkin, Certificate.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Guy's Hospital Pharmacopœia.

DEAR SIR,—According to your request I forward a few hints for the new Pharmacopœia. I also enclose a tract which I have found useful for giving to intelligent poor women.—Believe me, Yours faithfully,

Elmwood, T. HOLMESTED,
St. Heliers, Jersey. Surgeon-Major, retired.
20th June, 1898.

Tooth Powder, page 33 of Pharmacopœia, I think would be improved by addition of Potas. Chlorat., Quinæ. Sulph., Saccharine.

I consider the following Ointment the most generally useful I know of—

℞ Quinæ. Sulp., gr. viii.
Pulv. Acid. Boracic, gr. viii.
Tinct. Benzoin Co., ʒi.
Ess. Pumiline, gr. viii.
Vaselin., ʒiv.
Lanolin, ʒiv.

for sores of nose and face, chaps, blisters, chilblains, hæmorrhoids, pruritus and fissure, etc.

The following Paint I should not like to be without—

℞ Liq. Ferri Perchlor. Fort., ʒi.
Acid. Carbolic, ʒi.
Ol. Terebinth, ʒi.
Glycerine, ʒii.

for bruises, sprains, abrasions, boils, carbuncles, pimples, etc. from tanners' yards; after needling bursa, fractures, etc.; painting well all round, hot fomentation an advantage first, cotton-wool and bandage; phlegmonous infl., and doing badly will in the majority of cases be avoided; a few sulphur lozenges given at same time useful, and for beery subjects a pint of hot water ordered twice a day will keep the blood sufficiently fluid, and the crave for liquor lessened. In most eye affections the application of this paint to forehead and behind ear greatly assists cure; in chest affections it is often most useful, preventing empyema.

Massage. Lying in bed for any time is unnatural, we are condemned to gain our bread by the sweat of our brow. To get off this some go in for athletics, others for Turkish baths. Would not many of the sick be better for gentle massage? Sir E. Arnold says in Japan the blind are employed on this.

Diet.—Needs varying; the same for every meal and for days together cannot be so conducive to quick return to health as varied food, temptingly placed before the sick one. A hospital should also be a school for teaching those admitted how food can be rendered pleasingly varied, and that without needless cost or trouble.

Bananas and pineapples at wholesale prices might perhaps be obtainable, apples and gooseberries also; and perhaps Guy's estate could furnish these, both fresh and preserved. Eggs cooked in many ways are one of

the foods for the sick. Eggs may be preserved for nine months or more by being wrapped in oiled paper, placed in suitable boxes, and given a half turn daily. They cannot be distinguished from new laid ones. At Grimsby fish is now prepared, potted, and is excellent; if contracted for in large quantities it would probably be within the reach of the hospital, and perhaps two days in the week for breakfast a fish sandwich might be given. The sturdy Scotch are brought up on oatmeal porridge; when properly served it is delicious.

Many of the sick admitted have had their sickness to some extent induced by ignorance of sanitation. How few poor people open windows in cold weather? Could not the Sisters and Nurses help to send out many inmates wiser on such matters than on admission, thus further increasing the usefulness of Guy's and making it not only a school for medical students, but for all who are lucky enough to come under its roof. Many of the Ladies' Sanitary Association Papers might be added to the ward library.

Guy's Hospital Missionary Society.

THE Third Anniversary Meeting of this Society was held in the Court Room on Tuesday, June 14th, at 8 p.m. Dr. Stevenson in the chair.

The speaker, Dr. Arthur Neve, of Kashmir Mission Hospital, in the course of an extremely interesting address, gave an account of the miserable state of the hospital at Kashmir when he first went out there some seventeen years ago. Now the buildings, though nothing very grand, are quite adequate for their purpose. The hospital contains about 100 beds in 25 small wards. The work is mainly surgical; last year there were about 3,500 operations, major and minor, some 1,200 of which were on the eyes. There is also a great deal of bone surgery. On a busy summer day there may be as many as 200 out-patients to be seen.

Every day there is a short service and exposition at 12 o'clock, followed by an address to the out-patients, simultaneously with which a number of bible-readings are given in the wards. There is not so much opposition from the people as is often the case in other parts of India, for they know very little about their own religion, and are ready to believe and do anything the mullahs or priests tell them. The influence of the mission hospital is very widespread, for patients often come 150 or 200 miles to be treated.

Dr. Neve closed by pointing out some of the difficulties of a medical missionary's life. Absolute isolation from other skilled help, inferior appliances and untrained assistants, native customs and prejudices must be expected; add to that the fact that he has often to be his own architect, building contractor, translator, diplomat and lecturer in various subjects to native students, and the difficulty of his position is obvious. But the Missionary Societies are realizing more and more the value of medical work, and by establishing and supporting hospitals, are doing much to further their objects.

Chapel News.

The Church Council decided, on Monday last, to proceed at once with the work of completing the reredos. The two side panels are to be filled with figures of St. Luke and St. Barnabas, the patron saints (shall we say?) of doctors and nurses. Sketches will shortly be placed on view in the Chapel Porch. The two panels, it is estimated, will cost about £60, and the work of collecting that sum has been divided amongst the members of the Council.

The Council has also the pleasing duty of recording its hearty thanks to the anonymous donor of a new red altar frontal and two new pieces of altar linen. In both cases the gift came through the Matron.

Will our friends sometimes think of the Chapel, please, when they have flowers to spare? We have a contract with a local florist for the regular supply of a small quantity. But this barely meets our needs, especially in hot weather, when flowers fade so soon. They should be sent to Sister Job.

The Chaplain intends to be away on holiday during August. His duty will be taken by the Rev. M. C. Whitelaw, Rector of Sutton, Oundle.

Nursing News.

LIST OF SUCCESSFUL CANDIDATES IN THE MEDICAL EXAMINATION, MAY 31ST, 1898.

Allcock, G. Allen, M. Allen, Archdale, Boyd, Bridges, Brooker, Bullock, Burrows, Collins, R. Daniel, B. Daniells, Drever, Durant, Ellis, Gale, Gibson, Grasett, Green, Hands, Harbottle, Harvey, Hobbs, Howlett, Hughes, Johnstone, Kerr, Kew, Lamb, Lane, Lewis, Lownds, Mallandaine, Martyn, Morrah, Mudge, E. Newton, Oldham, Orr, Overbury, Park, Parlby, Potter, Ray, Reed, Rickwood, Simpson, Spedding, Studdert, Tonkin, Warren, White, Wilson, M. Wood, I. Wood, Yell.

From the Gazette's Special Pathologist.

NOTICES.

A. T. F., RAMSGATE.—The tumour is a well-encapsuled fibro-myoma of the uterus, and shows no degenerative change. But the cystic condition of the larger tumour was no doubt due to mucoid softening of its substance. There is no sign of malignant disease.

E. S., FULHAM.—No tubercle bacilli could be found in the sputum.

H. L., SALFORD.—On section, this breast shows much fibrosis, with atrophy of the glandular tissue. There is also recent cellular infiltration of the lobules, of an inflammatory type, but no sign of malignant disease.

K., REIGATE.—Tubercle bacilli are present in the sputum in large numbers. PATHOLOGIST.

Notes on The British Pharmacopœia, 1898.

ALTERATION IN DOSES.

The compilers of the British Pharmacopœia, 1898, have endeavoured so to adjust the strengths of the galenicals that uniformity of doses might be possible in the various classes of preparations. The following list shows that the result of their work has, on the whole, been fairly successful.

Aceta	10	to	30 minims.
Confections	60	„	120 grains.
Decoctions	½	„	2 fl. oz.
Extracts—Potent	¼	„	1 grain.
Others	2	„	8 grains.
Extracts, Liquid—Potent ...	5	„	15 minims.
Others ...	½	„	1 fl. dr.
Infusions	½	„	1 fl. oz.
Liquores, Concentrated ..	½	„	1 fl. dr.
Mixtures	½	„	1 fl. oz.
Pills	4	„	8 grains.
Tinctures—Potent	5	„	15 minims.
Others	½	„	1 fl. dr.

There are, of course, some exceptions in nearly every one of the above classes. The doses of liquores, hypodermic injections, powders, spirits and wines vary so much that they could not be placed in the above list.

The alterations in the doses of drugs are very numerous. A great many have been reduced one-half. Increased doses are few. The following list will give an idea of some of the chief changes:—

	B.P. 1898	B.P. 1885.
Acetanilidum ...	1 to 3 grains.	3 to 10 grains.
Camphora ...	2 „ 5 grains.	1 „ 10 grains.
Catechu	5 „ 15 grains.	10 „ 30 grains.
Chloroform	1 „ 5 minims.	3 „ 10 minims.
Cocainæ Hyd. ...	⅕ „ ½ grain.	⅕ „ 1 grain.
Cubeba	30 „ 60 grains.	30 „ 120 grains.
Ferri Arsenias ...	1/16 „ ¼ grain.	1/16 „ ½ grain.
Guaiaci Resin ...	5 „ 15 grains.	10 „ 30 grains.
Hyd. Perchlor ...	1/32 „ 1/16 grain.	1/16 „ ⅛ grain.
Hyd. C Creta... ...	1 „ 5 grains.	3 „ 8 grains.
Liq. Atropinæ Sulph	½ „ 1 minim.	1 „ 4 minims.
Potass Chlorat ...	5 „ 15 grains.	10 „ 30 grains.
Sodii Nitris	1 „ 2 grains.	2 „ 5 grains.
„ Sulphas ...	¼ „ ½ oz.	¼ „ 1 oz.
Strychnine	1/60 „ 1/15 grain.	1/30 „ 1/12 grain.
Paraldehyde	½ „ 2 fl. dr.	½ „ 1½ fl. dr.
Argenti Nitras ...	¼ „ ½ grain.	¼ „ ⅓ grain.

H. COLLIER.

Vacant Appointments.

ASSISTANT DEMONSTRATORSHIPS.

Applications are invited for the posts of Assistant Demonstrator of Biology, and of Chemistry. Forms of application can be obtained at the Medical School Office, and should be filled up and returned not later than Saturday, July 23rd, 1898. Particulars as to duties and remuneration may be obtained on application to Dr. Stevens or Mr. Wade.

Reviews.

A Manual of Dental Anatomy, Human and Comparative. By Charles S. Tomes, M.A., F.R.S. With 263 Illustrations. Fifth Edition. (London: J. O. A. Churchill, 7, Great Marlborough Street.) 1898.

We gladly welcome the new edition of this work, which has for many years been the recognised text-book for dental students. The author's researches and revisions to this date are very valuable, and although only four years have passed since the previous edition was published, we find that the present issue is enlarged by thirty-seven pages, and contains twenty-eight additional illustrations, many of which are reproduced from micro-photographs. The plan of the book is well known, dealing as it does first with the histological structure and development of the dental and surrounding tissues in man, and next with the dentitions of typical animals amongst the different orders of fish, amphibians, reptiles and mammals.

Von Bibra and others have given the chemical composition of enamel as containing from 3 per cent. to 5 per cent. of organic matter. Mr. Tomes has shown that enamel is practically inorganic, and that the percentage left upon incineration is not organic to any appreciable amount, but simply water of crystallisation chemically combined with the calcium salts. By this discovery Bödecker's theory—that an interstitial cemental substance exists between the prisms—falls to the ground.

Mr. Tomes agrees with the views of Mr. Leon Williams, lately brought before the Royal Society, as to the structure of formed enamel "beaded calcified rods or prisms embedded in a calcified matrix."

The author has somewhat modified his opinion as to the calcification of enamel. Summed up briefly, he formerly held that the ameloblasts calcify from without inwards by conversion of the cells into the formed enamel, and in corroboration of this view he cited: (1) The presence of Tomes' processes; (2) The action of glycerine upon the cells; (3) The pitted surface of young enamel. He now says: "The ameloblast itself does not calcify. Each ameloblast furnishes a fibrillar process, continuous with its own plasm which serves for the entire length of an enamel prism. Calcification and the changes preparatory to calcification take place in or round each fibril, quickly reaching its central axis in solid prism enamels, but never reaching it in tubular enamels." This now puts all calcified tissues in line, in that the various cells concerned in the formation of enamel, dentine, cementum, and bone, may all be said to secrete calcific matter—a theory long ago held by some authorities. The tubular enamel met with in many fish, some reptiles, and as a class characteristic amongst Marsupials is minutely described and figured. It will be in the recollection of some of our readers that Mr. Tomes read a paper upon this subject before the Royal Society in 1897.

The author says the sheaths of Neumann, and some other structures, are probably composed of elastin. In Quain's Anatomy a similar conclusion was suggested, without any argument in its favour being given, and some three or four years ago Mr. K. W. Goadby stated that the sheaths of Neumann give all the chemical reactions of elastin.

The theory that Nasmyth's membrane is a product of the cells of the epithelium has been advocated by Waldeyer, and by some American authors, and latterly the epiblastic origin of this membrane has been shown by Mr. F. T. Paul, of Liverpool, and we find Mr. Tomes for the first time concurs in this view.

The eruption of the teeth has always been a subject difficult to explain satisfactorily by any known physiological process. The author favours the theory recently brought forward by Mr. Constant, that the pressure of the blood current causes the tooth to be moved in the direction of least resistance, but Mr. Tomes qualifies his approval by saying this increased arterial tension can only arise where absorption of bone has taken place. This explanation seems to us unsatisfactory on account of the hydrostatic principles involved; and, again, it only carries the difficulty one stage further back, for what has brought about the absorption?

In reading the chapters upon Comparative Odontology we are pleased to see two diagrams, from Flower and Lydekker's Mammalia, showing the various forms of carnassial teeth in carnivora. We observe, too, that the dentitions of that heterogeneous and ancient group of animals classed under the order Insectivora are more fully described and figured than in former editions.

The measurements of Camper, to show the position of the face compared with the cranium, called in a word "the facial angle," are given, but the measurements of Owen are omitted. Owen gives the angle thus—a line drawn from the occipital condyle along the floor of the nostrils, and intersected by a second touching the most prominent parts of the forehead and upper jaw and the angles given, 20° for dog, 85° for an Australian black, and 95° for a European, are Owen's.

The difference between the facial angle and the gnathic index is not clearly put. The latter measurement is for another purpose, namely, to determine the degree of prognathism in *man*. There is, of course, an inverse ratio between the facial angle and the gnathic index, but the former is an anthropological, whilst the latter is an ethnological detail.

The description of the human teeth and maxillæ may be with advantage removed from the order Primates at the end of the book to the beginning—its position in some of the earlier editions—so that the student may learn human before studying comparative dental anatomy.

In concluding this notice of an excellent work we should like to see some errors eliminated, *e.g.*, the dental formulæ of the hyæna, catarrhine monkeys, and the typical dentition of recent marsupials are inaccurate.

The diagram of Desmodus (fig. 232) is incorrectly drawn as regards the upper incisor and canine teeth, the necks of which should be in contact, and the diagram of Hydrophis (fig. 129) is inverted. Echidna is spoken of as the scaly ant-eater, instead of the spiny; whilst ornithorhynchus, anarrhichas lupus, and narwhal are mis-spelt in places.

Sport.

Guy's Hospital Athletic Club.

Annual Meeting.

The annual sports were held at the Clubs' Union grounds, Honor Oak Park, on Wednesday, June 22nd. Fortunately the weather was all that could be desired, and about seven hundred spectators viewed the proceedings, among whom we were pleased to note a good number of sisters and nurses. The band of the City of London Artillery added greatly to the pleasure of those present. The track, chiefly owing to the exertions of Harris, was in the best of condition, in fact it is now one of the best grass tracks in London. A large number of the Staff were present with their friends, others were, we hear, prevented by duty. In spite of a good track, a good attendance, and fine weather, the proceedings were somewhat marred by the small number of the competitors, especially in the longer distances. At the conclusion of the meeting Mrs. Cosmo Bonsor distributed the prizes.

The following is a list of officials:—President: R. Clement Lucas, Esq., B.S., F.R.C.S.; Committee: R. C. Brayne, F. J. Pearce, G. T. Willan, A. C. H. Gray, T. R. Beale-Browne, H. A. Higgens, R. M. Barron, E. A. Longhurst, H. D. Trail, F. E. Walker, C. F. Watson, F. S. Batchelor; Hon. Secs.: F. W. Sime and W. L. Baker; Judges: J. Fawcett, Esq., M.D., F.R.C S., J. H. Bryant, Esq., M.D., F.R.C.S., H. A. Munro, Esq., M.B., F. J. Steward, Esq., M.B., F.R.C.S.; Referee: C. Higgens, Esq., F.R.C.S.; Starter: H. S. Desprez, Esq., Time-Keeper: T. Shepheard; Lap-Scorers and Stewards: The Committee.

The following is a brief account of the proceedings:—

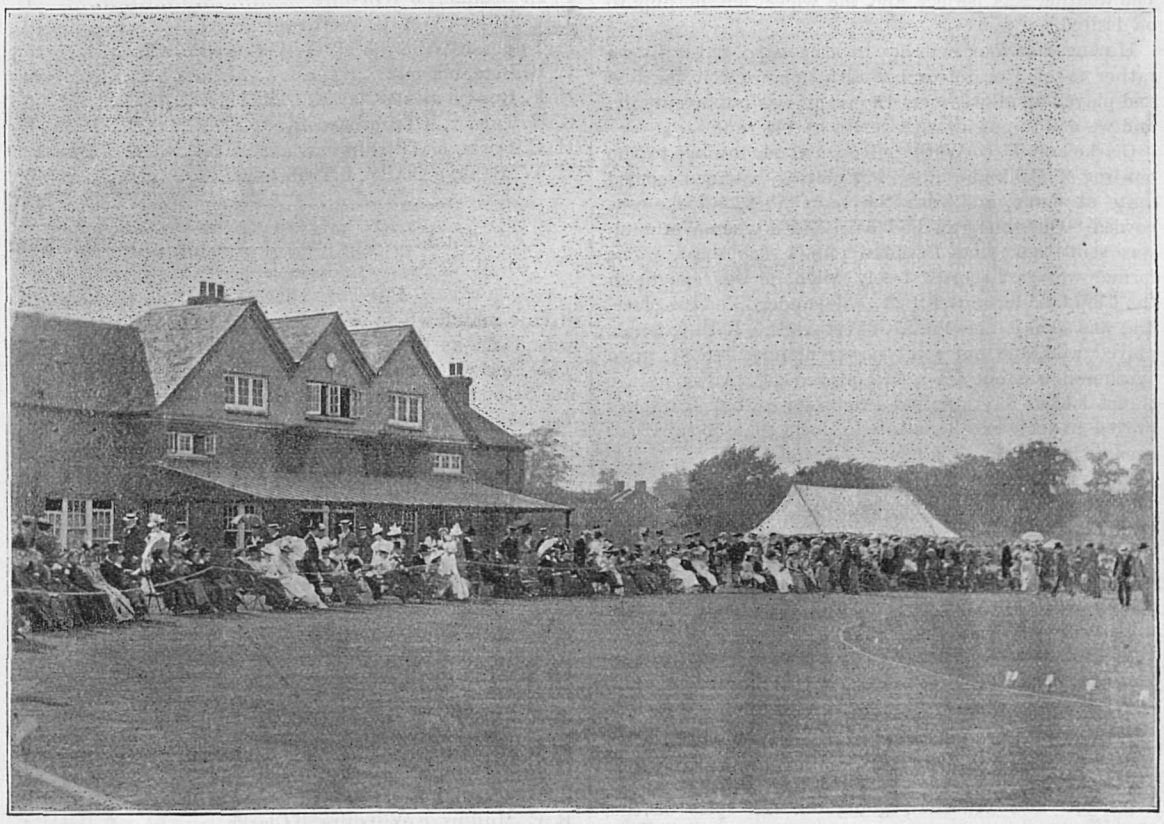
100 Yards Handicap.—Final heat: F. J. Pearce, 9 yards start, 1; F. W. Sime, scratch, 2; E. A. Longhurst, 4 yards, 0; P. L. Hicks, 9 yards, 0. Time, 10⅘ secs. A strong wind blew straight down the track, which of course was against fast times. Won by 2 feet; a yard separating second from third.

Half-Mile Handicap.—A. C. H. Gray, 45 yards start, 1; L. Pern, 27 yards, 2; D. H. Trail, 2 yards, 3; also ran: J. H. Wilkes, 35 yards; O. Travers, 35 yards; M. A. Collins, 45 yards; M. D. Wood, 50 yards. Won by 4 yards; 3 yards separating second from third.

Throwing the Hammer.—F. W. Sime, 79ft. 6in., 1; M. D. Wood, owes 3ft., 2; E. A. Longhurst, 0; D. H. Trail, 0. An improvement on recent years.

120 YARDS HURDLE HANDICAP.—Final heat: F. M. V. Smith, owes 3 yards, 1; E. B. Dowsett, scratch, 2; W. H. Edmonds, 0; F. J. Pearce, scratch, 0. Time, 19⅗ sec. Won by a yard and a half. The winner's time was much spoilt by the wind.

ONE MILE HANDICAP.—L. G. Nash, 90 yards start, 1: H. N. Clarke, 90 yards start, 2; W. L. Baker, scratch, 0; R. M. Brown, scratch, 0. Time, 4 min. 55 sec. Only four turned out for this event. The winner ran well, but was never pressed; we have no doubt he can knock many seconds off the rather poor time. Won by 30 yards, 110 yards from the scratch man.



PUTTING THE SHOT.—R. C. Mullins, 32ft. 9in., 1; D. H. Trail, 2; F. W. Sine, F. J. Pearce. Mullins' put was a great improvement on recent years; we think he might even do better with steady practice.

BICYCLE RACE—TWO MILES.—R. C. G. May, scratch, 1; J. H. Greenwood, 30 yards, 2; J. E. L. Bates, 20 yards, 0; A. M. Gabriel, 30 yards, 0; W. P. Ker, 50 yards, 0; J. Black, 60 yards, 0; G. T. Collins, 100 yards, 0. This was one of the best races of the day; the winner showed great judgment and sprinting powers.

220 YARDS HANDICAP.— Final heat: F. W. Sime, Scratch, 1; D. H. Trail, 10 yds, 2; E. A. Longhurst, 6 yds, 0; F. J. Pearce, 13 yds, 0; T. R. Beale-Browne, 14 yds, 0. Time, 24⅘ secs. The time was very poor, the scratch man winning somewhat easily.

HIGH JUMP.—F. M. V. Smith, W. H. Edwards, dead-heat, 1, 5ft; H. A. Higgens, 0; E. T. Willan, 0. We think there must be men at Guy's capable of clearing more than 5ft. Willan was palpably quite unfit.

VETERANS' RACE, 300 YARDS.—J. E. Edey, 20 yds, 1; R. T. Fitz-Hugh, 35 yds, 0; R. P. Rowlands, 35 yds, 0. Edey ran very well for an untrained man. Time, 36 sec.

THREE-LEGGED RACE.—H. V. Bagshawe and F. L. Rae, 1; A. C. Ransford and F. D. S. Jackson, 2. Five pairs started; won by 10 yds. The runners up who won in '96 and '97, seem to have gone off somewhat. This race produced much amusement.

440 YARDS HANDICAP.—O. Travers, 19 yards start, 1; P. L. Hickes, 17 yards, 2; T. R. Beale-Browne, 25 yards, 0; W. F. Box, 19 yards, 0; P. R. Bolus, 18 yards, 0. Time, 55⅕sec. Won by a foot. None of the back markers turned out.

LONG JUMP.—W. H. Edmonds, scratch, 19ft, 1; F. M. V. Smith, scratch, 2; H. A. Higgens, owes 4in, 0; P. L. Hickes, 0.

THREE MILES.—R. S. Roper, 1min. 30secs. start, 1;

R. E. Brayne, 1min 40sec, 2; C. F. Watson, 50sec, 0. The time was bad, but as both runners are new to the track, we may hope for better things in future years.

CONSOLATION RACE, 300 YARDS.—E. A. Longhurst, 1; G. Shorland, 0; Ayre-Smith, 0. Won by 5 yards.

Cricket.

GUY'S v. BART'S.

CUP TIE.

On Friday, June 17th, Guy's journeyed to Chiswick to play off the second round of the Inter-Hospital Cup Tie. The weather was perfect, and the wicket left nothing to be desired.

Having won four matches in succession, naturally we rather fancied ourselves, but although we won the toss and played up all we knew, the result was not favourable, and we had to put up with defeat by 144 runs.

Clarke and F. C. Wetherell opened our innings to the bowling of Pank and Rose, but neither batsmen seemed quite at home, and with the score at 22, Clarke was bowled. Only one run had been added when Wetherell was sent back, and Brydone joined Trubshaw. The former was just scoring freely when he was caught in the deep field for a useful 23. Alexander filled his place, and was soon joined by M. C. Wetherell. Both batsmen played well, and our total slowly mounted to 84, when Wetherell was out for a well played 26. At this stage things looked anything but bright for us, but Humphry proved in such excellent hitting form that 50 runs had been added before Alexander was dismissed.

Willan played well for his runs, and with Wiltshire put on 30 for the last wicket, and the innings closed for 186.

Clarke and Wetherell shared the bowling when Bart's. began to bat. With the former's first ball Randolph was well caught by Wetherell in the slips, and Greaves filled his place.

The total was 34 when Wiltshire clean bowled Nunn, and nine runs later Brunner was served in a like manner.

With three wickets down for 43, the match was certainly full of interest, but on Willett joining Greaves the total gradually increased, so that with the score at 78, a double change of bowling was brought about, Wetherell and Trubshaw going on. In spite of this change runs came freely, so that Clarke again took the ball, with the result that Greaves was bowled at 157 for a magnificent innings of 89. Willett only stayed while five more runs were added, and another wicket was secured by us before our total was passed. The match now having lost its interest we became slack, and Pank and Biggs added 81 for the last wicket. Scores:—

GUY'S.

A. E. Clarke, b Rose	10
F. C. Wetherell, c Boyle, b Rose	9
K. V. Trubshaw, b Pank	13
J. M. Brydone, c Brunner, b Pank	23
K. B. Alexander, c Nunn, b Greaves	25
M. C. Wetherell, c Boyle, b Greaves	26
L. Humphry, b Bigg	30
H. Durbridge, c Turner, b Pank	3
G. T. Willan, b Pank	25
A. E. Cawston, c Willett, b Rose	7
H. P. Wiltshire, not out	10
Extras	5
Total	186

ST. BART'S.

J. W. Nunn, b Wiltshire	21
W. H. Randolph, c F. C. Wetherell, b Clarke	0
H. S. Greaves, b Clarke	89
F. E. Brunner, b Wiltshire	1
J. A. Willett, b M. C. Wetherell	40
E. Talbot, c Willan, b M. C. Wetherell	15
L. B. Bigg, not out	82
E. F. Rose, c and b Clarke	6
C. H. Turner, b Trubshaw	8
H. C. Boyle, b Wiltshire	13
H. W. Pank, c Clarke, b Trubshaw	40
Extras	15
Total	330

PAST v. PRESENT.

This match which was postponed from Whit-Monday, was played at Honor Oak Park on Saturday, June 18th. The Past team was unfortunately neither representative nor strong, and thanks to the fine batting of K. V. Trubshaw, we were able to add another victory to our list. His innings of 135, although not free from mistakes, was a fine performance, and contained 21 four's. Clarke proved in grand form with the ball, and secured five wickets for 49. Trubshaw's average was almost the same, being four for 39. In the evening both teams were entertained by our President, Dr. Brailey, at dinner in the College, and everyone spent a most jolly time. Scores:—

PAST.

W. J. Scott, b Clarke	12
E. Reid, c and b Trubshaw	62
F. J. Nicholls, b Trubshaw	18
C. J. Francis, b Cowper	15
F. E. Walker, b Clarke	1
C. H. Fagge, b Clarke	6
R. C. Mullins, c Wiltshire, b Clarke	4
E. G. Goddard, not out	14
W. H. P. Barrow, c and b Trubshaw	6
T. R. Thomas, b Trubshaw	0
G. Shorland, c Cohen, b Clarke	5
Extras	11
Total	154

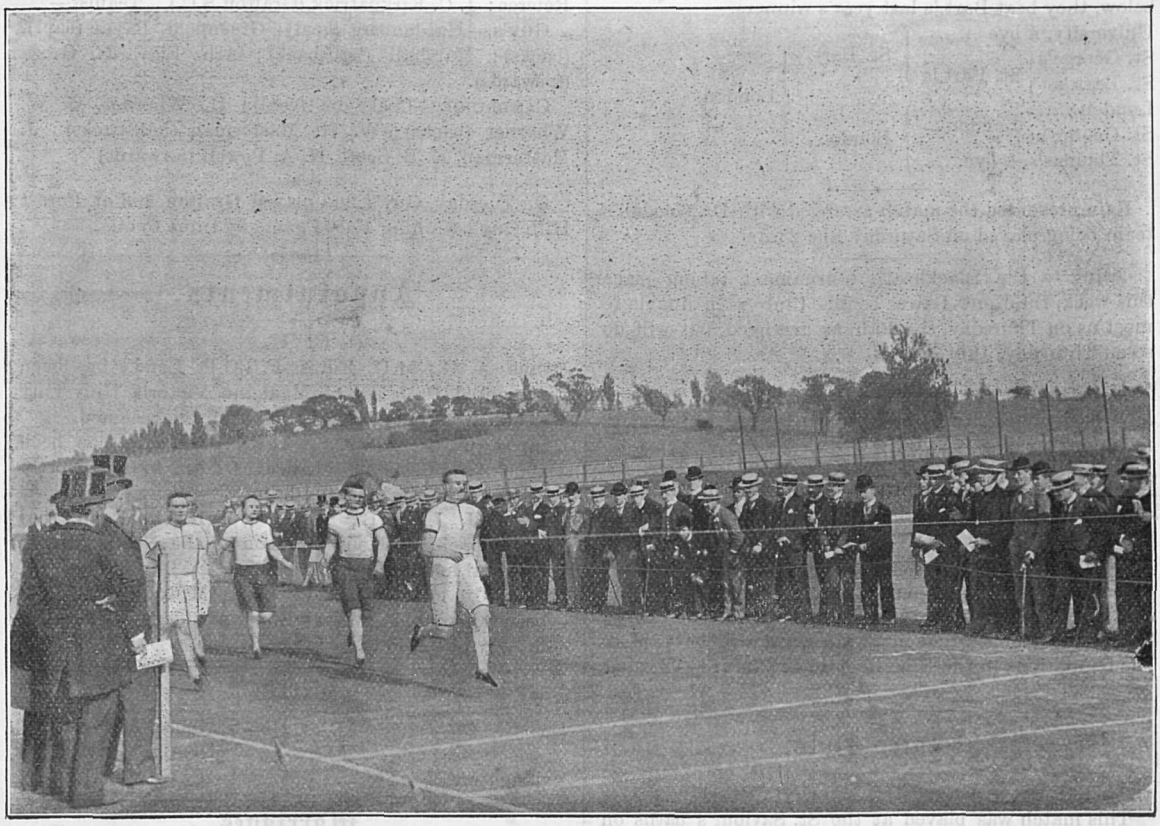
PRESENT.

A. E. Clarke, c Walker, b Nicholls	0
F. C. Wetherell, b Goddard	24
K. B. Alexander, lbw, b Reid	21
K. V. Trubshaw, c Francis, b Mullins	135
J. M. Brydone, c Reid, b Goddard	9

M. C. Wetherell, b Goddard	0
L. Humphry, not out	5
G. T. Willan, c Nicholls, b Goddard	4
E. Cohen, run out	1
H. P. Wiltshire, b Reid	9
C. M. Cowper, b Mullins	2
Extras	37
Total	247

to two. The light was not as good as it might have been, with the consequence that the match was not quite finished.

P. S. Mandy and H. K. Lacey beat F. V. Kirk and H. Vere Jones, 6–0, 6–4; beat J. K. Hawker and E. T. Lindley, 6–3, 6–3. J. G. Cross and E. L. R. Kelsey beat H. Higley and W. H. Kendell, 6–3, 6–4; lost to F. V. Kirk and H. Vere Jones, 7–9, 3–6. M. C. Wetherell and A. C. Ransford beat J. K. Hawker, and E. T. Lindley,



Guy's Hospital Lawn Tennis Club.

GUY'S v. CONNAUGHT.

Guy's team journeyed down to Chingford to meet the Connaught Club. A late start was made and rain prevented the game being played out, but taking the result on the games played, Guy's were losers by 5 matches to 1. Guy's were represented by P. S. Mandy, H. R. Lacey, C. G. Cross, E. L. R. Kelsey, F. L. J. Bales, and A. C. Ransford. Mandy and Lacey were the only couple to win a match, the result being 14–12, 11–13, 6–2.

GUY'S v. FARNLEY.

Played at Honor Oak Park, Thursday, June 16th, at 5 p.m., resulting in a win for the Hospital by four matches 6–4, 1–6, 6–4; lost to H. Higley and W. H. Kendell, 4–6, 6–2, 4–6.

GUY'S v. BART'S.

INTER-HOSPITAL COMPETITION.

Played at Chiswick on Monday, June 20th, and ended in the defeat of the Hospital by last years' winners by ten matches to two. M. C. Wetherell alone winning his single.

F. G. Cross lost to S. Bousfield, 6–2, 6–2; E. N. H. Kelsey lost to J. K. N. Maish, 6–1, 6–4; P. S. Mandy lost to V. S. Bell, 6–3, 6–1; H. K. Lacey lost to C. Pennifather, 6–3, 6–4; M. C. Wetherell beat J. Stirling Hamilton, 6–4, 5–7, 6–3; C. T. Willan lost to C. H. Baine, 6–3, 6–4.

P. S. Mandy and H. K. Lacey beat V. S. Bell and C. Pennifather, 6-3, 6-1; lost to S. Bousfield and J. K. N. Maish, 4-6, 4-6; F. G. Cross and E. N. R. Kelsey lost to S. Bousfield and J. K. N. Maish; lost to J. Stirling Hamilton and C. H. Baine; M. C. Wetherell and G. T. Willan lost to J. Stirling Hamilton and C. H. Baine; lost to V. T. Bell and C. Pennifather.

The result of the Inter-Hospital Competition was as under, London gaining the trophy for the first time since its institution in 1887. In the final, as shown below, they beat Bart.'s last year's winners.

University, a bye		St. Bart.'s	London.
St. George's	St. Bart.'s		
St. Bart.'s			
London.....	London ...	London ...	
St. George's			
St. Thomas's, a bye.....			

Rain prevented the match arranged with Dr. Goodall's team being played on Saturday, the 23rd.

Owing to the Blackheath tournament taking place this week, the Kent Lawn Tennis Club were unable to meet us on Thursday, the 30th, as arranged, but will do so on Thursday, July 7th.

As Prize-day has been fixed for the 13th of July, we have been obliged to scratch our match with Chiswick, fixed for that date.

DEAR SIR,—May I, through your columns, call the attention of members of the Clubs' Union to bye-laws of the Lawn Tennis Club, Nos. 6 and 7, to the effect that ladies may be introduced as visitors on Tuesdays only, and gentlemen any day except Wednesdays and Saturdays. As these rules have both recently been ignored, it is hoped that more attention will be paid to the regulations in the Blue Book in the future.—Yours,

H. K. L.

Water Polo.

GUY'S v. CAMBRIDGE UNIVERSITY.

This match was played at the St. Saviour's baths on Monday last, when a good game was witnessed. Guy's defended the shallow end in the first half. Play throughout the whole of the first half was very even and exciting, the ball for the greater part of the time being in the Cambridge half. After five minutes' play, Marshall opened Guy's account with a grand shot from half-way. Soon afterwards, Masterman scored for Cambridge with a low swift shot which was out of Hardenberg's reach. Half-time arrived with the score at one all. In the second half Cambridge had matters more their own way, and scored four goals in fairly quick succession. Guy's once or twice had the Cambridge goal at their mercy, but failed to score owing to slowness in picking up the ball. Marshall had two or three shots at goal and certainly had hard lines in not scoring. Cockayne playing a good game in goal for the 'Varsity. When the whistle blew for time, the score was five to one in favour of Cambridge. The score does not really represent the game, Guy's goal-keeping being very weak in the second half. Marshall, Payne, Grose and Edwards played a good game. Hardenberg in goal was sadly in need of practice. For Cambridge, W. H. Masterman, Powell and Cockayne were the most conspicuous, Cockayne, in goal, playing an excellent game. If Guy's only buck up and play the same style of game in the cupties, there is more than a chance of retaining the trophy. Referee: J. C. Kirkpatrick (Grafton S.C.). Teams:—

GUY'S.—Hardenberg (goal); Greenfield, Payne (capt). (backs); Marshall (half-back); Ash, Edwards, Grose (forwards).

CAMBRIDGE.—Cockayne (goal); H. Wherner, C. W. Wherner (backs); W. H. Masterman (half-backs); J. Masterman, E. B. Scott, H. A. Powell (forwards).

On Tuesday, Guy's 2nd played Grafton 2nd at Forest Hill, Guy's winning a good game by three to one.

Appointments.

CIVIL.

BARRS, A. G., M.D. Edin., F.R.C.P. Lond., has been appointed Professor of Medicine, Victoria University (Yorkshire College), *vice* J. E. Eddison, resigned.

BURTON, C. G., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer to the North-Eastern Hospital for Children.

FOSTER, J. J., M.B., M.R.C.S., L.R.C.P. Lond., has been appointed House-Surgeon to the North-Eastern Hospital for Children.

KNOTT, CHARLES, M.R.C.P. Edin., M.R.C.S. Eng., has been appointed Medical Superintendent for the Infirmary of the Portsea Island Union.

Birth.

FARR.—On June 20th, at Heath House, Andover, the wife of Ernest A. Farr, J.P., M.R.C.S. Eng., of a daughter.

Marriages.

BUTLER—GULLICK.—On June 7th, at Christ Church, Bath, Arthur George Butler, M.B. Lond., of Trevase, Beckenham Road, Penge, to Maude Corallina, eldest daughter of T. Gullick, Esq., of Heathfield, Bath.

FRIPP—HAYWARD.—On June 8th, at the Parish Church, Reigate, Alfred Downing Fripp, M.S., F.R.C.S., of Portland Place, W., to Margaret Scott, only daughter of Thomas Burt Hayward, of Woodhatch, Reigate.

STEAD—HARRISON.—On June 14th, at St. Paul's Church, Clifton, Bristol, by the Venerable Archdeacon Stead, assisted by the Rev. Canon Mather, Charles Clement, eldest son of Archdeacon Stead, to Adelaide Mary, third daughter of Dr. A. J. Harrison, of Failand Lodge, Clifton.

ED.—F. E. W.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

July.

Sat. 16.—Messrs. Lucas and Lane's take-in; Drs., C. H. Brangwin and H. R. H. Denny; Cl., W. J. Lindsay.
G.H.C.C., I., Brentwood, home.

Mon. 18.—Preliminary Scientific M.B. Lond. Exam. begins.

Tues. 19.—Exam. in Dental Mechanics (paper) 2—5 p.m.

Wed. 20.—Messrs. Golding-Bird and Dunn's take-in; Drs. G. N. Meachen and H. M. Reeve: Cl., H. W. Bruce.
G.H.L.T.C., Albemarle, away.

Thur. 21—Exam. in Operative Dental Surgery (paper) 2—5 p.m.
G.H.C.U., Devotional Meeting.

Fri. 22.—Exam. in Dental Microscopy, 2—5 p.m.

Sat. 23.—G.H.L.T.C., Harold L.T. Club, home.

Mon. 25.—Exam. for Junior and Senior Prizes for General Proficiency and for the Beaney Prize in Pathology.

Tues. 26.—First Conjoint Exam. begins.

Wed. 27.—Messrs. Howse and Jacobson's take-in; Drs., E. E. Parrett and E. J. Tongue; Cl., F. Shufflebotham.
G.H.L.T.C., Chiswick, home.

Sat. 30.—G.H.C.C., II., Hos.-Scho., home.

Guy's Hospital Gazette,

JULY 16, 1898.

The Endowment of Medical Research.

"*I have all my life been an ardent believer in the cause which is so often laughed at—the cause of the endowment of research. In that cause I most firmly believe, and I think there is no branch of knowledge in which it may find a more useful field of application than in that of advancing medical knowledge.*"—Mr. Balfour at Guy's, July 13th, 1898.

The cause of true research, of research for the love of knowledge without pecuniary benefit, has at last found a public advocate. Mr. Balfour, in his most able speech on Wednesday, has exposed the shortsightedness of a generation, which, although fortunately only too ready to help the work of a great charity like this at Guy's, neglects to think of its descendants.

For, as through the lapse of time peoples and types are slowly changing, so, also, are diseases changing *their* type, and, by reason of changing environment, old diseases are dying out and new ones are appearing. We have only to mention the bubonic plague or influenza to call more vividly to the minds of our readers what a vast effect upon a nation the recrudescence or re-appearance of a single disease can produce. But we doubt if, ten years ago, anyone would have been prevailed upon to further investigation into these diseases by pecuniary help. People at large did not know of these diseases, and held them of slight importance, and as the public memory is very short, they will as soon forget them. But we are in the same position to-day as people were ten years ago. We cannot possibly foretell the future, and some new disease, or some new variation of an already existing disease, may arise which will tax the resources of the medical and scientific world to their utmost in their endeavour to successfully grapple with it. The more we can learn with regard to the origin and causes of disease before that time, the better position we shall be in when the danger arises.

To mention only one particular line of research—Bacteriology—what enormous strides this small special branch of medical learning has made in the last quarter of a century, and with what inestimable benefit to the human race. Yet only those who have personally worked at this subject can realise the ceaseless daily minute and careful observation which it entails. If a man is to do anything with bacteriology, he must do nothing else, the subject is so vast. And when the enthusiast

has spent his whole useful life at it, he very possibly will reap no pecuniary advantage, and his sole memory will be a few references in some recondite work on the subject. Yet, if that man has found out one single original fact, his work has been more useful than that of a man who, parrot-like, has only repeated what he has been taught without adding to it from his own intellect.

And, finally, in the whole field of research, those engaged upon medical research have the first claim upon the charity of the public. We have heard of two veterinary surgeons in Germany who spent two years investigating the structure of the epithelial covering of a certain nematoid worm which infests the alimentary canal of horses in some districts of that country. This work is, no doubt, most admirable, yet we doubt if it is of the same value as original investigation to the cause and nature of disease, in any branch, with relation to the human body. For this reason we most sincerely hope that Mr. Balfour's eloquent words will bite deep into the public mind, and produce some generous response.

Guy's Hospital Prize Distribution.

THE Annual Distribution of Prizes took place on Wednesday of this week, and Mr. A. J. Balfour kindly consented to give away the prizes this year. This event was of particular interest from the fact that Mr. Balfour has quite recently been elected to the Court of Governors.

The day opened in the most disappointing fashion with rain and wind, but it improved vastly as it advanced and eventually proved a true summer's day, showing off the hospital and park to the best advantage.

The ceremony was fixed for three o'clock, but quite by two, guests began to arrive, and long before three the New Physiological Theatre was packed from floor to ceiling. The arrangements for conducting the aforesaid guests were ably carried out under the guidance of the four stewards, Messrs. G. Bellingham Smith, C. H. Fagge, F. J. Steward and Dr. Fawcett.

As on the occasion of the Prince of Wales' visit, academical costume was worn, and not without reason, for the whole proceedings are enlivened by colour of the various hoods, and their respective value provides much food for discussion to the waiting crowds.

While the theatre was filling, many of the Governors and distinguished visitors were assembling in the Court-room, where they were received by Dr. Pye-Smith, to meet Mr. Balfour.

Amongst those present were :—Viscount Cobham, Lord Cottesloe, Lord Reay, Lord Lawrence, Lord Aldenham, Hon. Sir Chas. Fremantle, Hon. Evelyn Hubbard, M.P., Sir Samuel Wilks, Bart. (President of the Royal College of Physicians), Sir W. J. Farrer, Sir Joseph Fayrer, Sir James Blyth, Sir Myles Fenton, Sir Joseph Ewart, Sir James Kitson, The Archdeacon of London, Lieut.-Col. Curtis-Hayward, Mr. B. L. Cohen, M.P., Mr. J. A. Shaw-Stewart, Mr. Samuel Hoare, M.P., Mr. R. K. Causton, M.P., Mr. J. Lowles, M.P., Mr. Sheriff Dewar, Mr. McKinnon-Wood (Chairman of the L.C.C.), Mr. Alderman Treloar, The Master of the Stationers' Company, The Master of the Curriers' Company, The Master of the Saddlers' Company, The Clerk of the Salters' Company, The Master of the Society of Apothecaries, The Head Master of the City of London School, Rev. Canon Taylor, Dr. Glover, Mr. F. A. Lucas, Mr. A. L Cohen, Mr. A. J. Lawrence, Mr. J. C. Marshall, Capt Hart Davis, Mr. J. F. France, Mr. Lionel Holland, Mr N. Watney, Mr. R. Harvey.

Shortly after three o'clock Mr. Balfour drove up, and was received at the door of the Court Room by H. Cosmo O. Bonsor, Esq., M.P., Treasurer of the Hospital, and Dr. L. E. Shaw, Dean of the Medical School, supported by many of the Governors, the Members of the Medical and Surgical Staff and the above distinguished guests. After a short interval, during which several of the Staff were introduced to Mr. Balfour, the way was led to the New Physiological Buildings. By this time the heat in that building was intense, and we most heartily commiserate with those who had waited there any considerable time.

Mr. COSMO BONSOR, in introducing Mr. Balfour, said : Mr. Balfour, Governors, ladies and gentlemen, it is one of the privileges, and the few pleasures, of the Treasurer of Guy's Hospital to preside on an occasion like this—an occasion when one has not to ask for subscriptions, not to appeal for funds, but to introduce a distinguished gentleman to give away prizes to our successful students. During the last few months, I regret to say that we have lost many distinguished Governors,—Mr. Gladstone, our oldest Governor, has passed to his rest; Sir Thomas Acland, also a distinguished Governor, and a gentleman who gave very considerable attention to the interests of this Institution, has also died, but I am thankful to say on behalf of the Governors, that where we lose distinguished men, there are distinguished men always ready to take their places, and in introducing to you—I need hardly say in introducing to you, because you all know Mr. Arthur Balfour (applause)—but in asking him to do us the honour to give away our prizes to-day, I may also tell you that he has done Guy's Hospital an honour in becoming one of its Governors (applause), and he is here to-day to do one of the duties of a Governor. Ladies and Gentlemen, I ask Mr. Balfour to be kind enough to give away the prizes, and the Dean that he will be good enough to call up the successful prize-winners to receive their prizes from Mr. Balfour's hands.

LIST OF ENTRANCE SCHOLARS, PRIZEMEN AND MEDALLISTS.

OPEN SCHOLARSHIPS IN ARTS.—Percy Reginald Bolus, Bancroft School, Woodford Wells, £100. Gayton

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Warwick Smith, Liverpool College, Certificate. Dental Students.—Percival Pasley Cole, Weymouth College, £30.

Open Scholarship in Science.—Albert Ernest Hardman Pakes, Guy's Hospital, £150.

Scholarship for University Students.—Aubrey Hugh Davies, Caius College, Cambridge, £50. Reginald Cuthbert Mullins, Keble College, Oxford, Certificate. James Alison Glover, St. John's College, Cambridge, Certificate.

Second Year's Prize (1897).—James Alfred Butler, £25.

Junior Proficiency Prizes.—Louis Edward Stamm, £20. William Henry Bowen, Claude Tessier, equal £12 10s. each. Henry Crewe Keates, Certificate. George Thomas Collins, Certificate.

The Michael Harris Prize for Anatomy.—Claude Tessier, Prize, £10. William Henry Bowen, Certificate.

The Sands-Cox Scholarship in Physiology.—Louis Edward Stamm, £15. Myer Coplans, Certificate.

The Hilton Prize for Dissection (1897).—Frederick Goulborn Gibson, Prize, £5.

The Arthur Durham Prizes for Dissections.—First Year's Students.—Richard Willan, Prize, £5. Carrick Hey Robertson, Certificate. William Edward James Tuohy, Certificate. Second Year's Students.—Hugh Davies-Colley, Claude Tessier, equal, £7 10s. each. Herbert William Brown, Certificate. Henry Francis Hatfield, Louis Edward Stamm, equal, Certificates.

Dental Prizes.—Second Year's Students (1897).—Hubert Arnold George Butler, Prize, £15. Alfred William Walker, Certificate. Victor George Smith, Certificate. Bertram James Sumerling, Certificate. First Year's Students (1897).—Percival Sidney Campkin, Prize, £10. Harry Hudson Evans, Certificate. 1898.—Frank Warlow, Prize, £10. Hugh Titford Campkin, Certificate.

Practical Dentistry Prize (1897).—Henry Albert Ellis Canning, Prize, £10. Alfred William Walker, Certificate. 1898.—Percival Sidney Campkin, Prize, £10. John Stewart Farnfield, Stephen Holloway Olver, equal, Certificates.

Fourth Year's Prizes (1897).—Philip Turner, Prize, £25. Harold Wilson Bruce, William Tayler Milton, equal, £5 each. Charles Leopold Granville Chapman, George Ernest Richmond, equal, Certificates.

The Richard Bredin Prize for Clinical Study.—(1897) Robert Pugh Rowlands, £25. (1898) William Tayler Milton, £25.

The Golding-Bird Gold Medal and Scholarship for Sanitary Science.—Robert Wynne Charles Pierce, £20.

The Treasurer's Gold Medal for Clinical Medicine.—(1897) Robert Pugh Rowlands. (1898) William Tayler Milton.

The Treasurer's Gold Medal for Clinical Surgery.—(1897) Robert Howard. (1898) Frederick Edward Walker, Philip Turner, equal, a medal being awarded to each.

After the distribution of prizes, Mr. Balfour rose and spoke as follows: Ladies and gentlemen, you have all witnessed the interesting ceremony of the reception of the prizes by the successful students at the hospital, and in a sense I suppose that with the termination of that ceremony, the main part of our afternoon's work is completed. Yet I hardly think that you would regard it as proper to separate without giving a public expression, and if I may say so, public expression through my mouth, of congratulation to the gentlemen whose success we have all come here to-day to honour (applause). They have commenced their medical career with great success, and I am sure that all of us hope and anticipate that the triumphs that we have celebrated to-day will only be the first of many triumphs which they will obtain. They have devoted themselves to one of the noblest professions which a man may follow; they have devoted themselves to a profession which perhaps above all others has unostentatiously devoted itself to the succour of the poor; a profession which has the good fortune, among many, over almost any other profession that I can name, or that I can think of, of seeing the results of its labours for the good of mankind, for the alleviation of pain, for the prolongation of life, rewarded, as it were, before its eyes. To those who are engaged in other walks of life, not perhaps less necessary or less useful to a civilised community, no such advantage is given. To the politician, at all events—for whom I have perhaps some right to speak (applause)—is seldom given the opportunity of being able to judge of the value of his labours, nor is it possible to estimate whether his work has been on the whole for the advantage of mankind, or to its disadvantage; and perhaps when he has ceased to labour his work has become the subject of historical criticism. Now, ladies and gentlemen, it is particularly gratifying to me to be able to take part in a ceremony connected with this great hospital, of which I have so lately had the honour of becoming a Governor (applause). It is a great satisfaction to me that the occasion on which I first have anything to do with its practical work should be in relation to that portion of its double labours which deals with medical education. As most of you are aware the hospital is not only concerned with the alleviation of sickness and pain among the poor, but it is also one of the great schools of medicine which have in the past, and must in the future, be among the principal sources from which the medical profession is to be recruited, and it is that side of the labours of the hospital, on which, for a very few moments, I should like to engage your attention. The other side appeals directly and immediately to the sympathies of all. No man who devotes himself, even in the smallest degree to philanthropic work, but has had his attention drawn both to the financial needs of our London hospitals, and to the admirable work which they have done in this vast accumulation of humanity with which those interested in modern London have to deal. And as a result of the sympathy thus properly and naturally aroused in the public mind, I am glad to say that this Hospital has recovered—and I had almost said more than recovered—from the difficult position in which it found itself placed owing to the depreciation of land,

in which consisted its chief source of maintenance. The Prince of Wales' Fund—I am not quite sure of the total capital value of that fund, but at all events the contributions from that fund, and from other sources—will enable this hospital, as I am informed, to put, at no distant interval, to full use all the wards that it has at its disposal (applause), and I need not dwell upon the immense benefit to this part of London which results from this state of things. But the medical side—the educational side—of this great institution does not appeal, and cannot appeal, in the same immediate manner to the sympathies and support of the general public; and yet I would venture to say that it really is of not less importance than the other side. No doubt the medical side exists for what I may describe as the curative side, or the hospital side, but the hospital side could itself not flourish unless the medical schools of this country, and of other countries, engaged as they are in the furtherance of the work of medical research, are liberally aided in the great work they have to perform (hear, hear, and applause), and what I have always felt is that the public do not thoroughly realise the responsibility which is thrown upon them in this respect. We talk, and we talk truly, of the enormous advance made not only by the sciences generally, but also by the science and the art of healing, whether it be in the department of surgery, or in the department of medicine. That progress has of recent years been indeed enormous, and far beyond what, I think, the general public is really aware of; and yet, great as that progress has been, I think that the experts for whom I speak will not differ from me when I say that there is every prospect of the progress being still more rapid in the future, if only the conditions of that progress are thoroughly realised, and public assistance is adequately brought to promote that end (applause.) The public, however, cannot be expected easily to realise what are the new necessities to which every medical school is subject, how those necessities have arisen, and how they ought to be met; but in truth there are three considerations which, if we bear them in mind, will fully explain, I think, the situation in which this, and other great medical schools, has been placed by recent progress. There was a period at which almost the only subsidiary sciences to the art of healing—the only ones of practical value—were anatomy and physiology. But all that has been changed and at the present moment if a man is to make progress in medical research he must draw his inspiration not merely from those sciences which deal with the human organism immediately, but with chemistry and with almost every branch—I think I might say every branch—of physics; but while that tendency has, on the one side, been making itself manifest, while the inter-dependence of all these sciences is becoming more and more manifest, while the assistance which each gives, and must give, to the other, is becoming more and more evident, the separate sciences themselves are so rapidly accumulating facts, are growing so enormously, that specialisation necessarily and inevitably is set up in every one of them, so that you have the double tendency of an inter-dependence between the sciences, which makes it necessary for any man who would further any one of them to have some working acquaintance with many others, but, at the same time, you have specialisation thrust upon you by the mere accumulation, the rapidly increasing accumulation, of facts in every one of the separate sciences of which I have been speaking (applause). Now, the result of this double tendency is that you must rely more and more for your work in research upon people whose main labour is research. You cannot expect a man in the interstices of a busy life, in the interstices of a great practice, to do much towards the advancement of his science. I have been amazed myself at the way in which doctors in large practice keep abreast of the ever-growing needs of their profession, but to ask them, in addition to a great practice, to carry on immense labours in research is to ask what, after all, very few men are able to accomplish. No doubt there are exceptions—brilliant and splendid exceptions—but the exceptions themselves in this case only prove the rule, and I am convinced that I shall have upon my side every man practically acquainted with the needs of the case when I say that the work of advancing medical knowledge must, on the whole, more and more fall into the hands of those who devote themselves to research rather than to the overwhelming labours of daily practice. Well, if I am right in that—perhaps I have overstated my case, but I think not (applause)—if I am right in that, as I believe I am, it means that the cost of adequately equipping your medical school with teachers, the duty of providing not merely persons who can teach, but persons who can devote their lives to the work of developing the knowledge that we already possess, must be provided for out of funds not at present forthcoming. The man who would succeed in research, the man who at all events desires to devote himself to research, must not be asked to burden himself with other labours. He has upon his shoulders not merely what I may call the specialist work in his profession, but he must have a sympathetic eye, an appreciative eye to everything that is going on in other departments of science, so that even where he cannot follow those other departments mentally, he knows by instinct of genius where to pick up those new discoveries which may help his own special branch of research (applause). For men of that kind I think we require further endowment. I have all my life been an ardent believer in a cause which is often laughed at—the cause of the endowment of research (applause). In that cause I most firmly believe, and I think there is no branch of knowledge in which it may find a more useful field of application than in that of advancing medical knowledge. It is wonderful to think how the public are prepared to pay, and in my opinion rightly prepared to pay, for the services of those whose clinical genius, whose power of absorbing all that is practically useful in the knowledge of their day, whose bedside genius—if I may so describe it—demands, and ought to have the fullest

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recognition—it is wonderful, I say, how the public are prepared to pay for that kind of genius, but apparently put aside with indifference the not less essential kind of genius which deals with the progress of knowledge, and the furtherance of invention. This is not selfishness, I think it is latent imagination. The work of the medical practitioner is seen at once; its value can be immediately appreciated, but he who spends his life in the pursuit of the secrets of nature, working in his laboratory, may very often receive no public recognition at all during his life, except from that restricted circle of experts who alone, after all, are capable of forming any valuable estimate as to his merits (applause). I do not know whether the few words I have said upon this subject, a subject which has always been very near my heart, will move the liberality of those who, while quite ready to assist the day to day work of a great hospital, look with indifference, sometimes with an ignorant indifference, upon that other side of their work, upon which not merely the value of the hospital now depends, but on which the progress of medical science for us, and for our children, and for our children's children, really ultimately depends. If I am in any way successful in inspiring others with my own strongest beliefs upon this subject, at all events I shall not have spoken in vain on this, my first appearance among you. Ladies and gentlemen, I have, by a not unnatural transition, left the subject of the successful prize winners, and travelled off into the fields in which I hope they will distinguish themselves, but which have no immediate relation to what brought us here this afternoon. If I have gone too far, if I have dealt with details interesting perhaps to a very small number, I trust I shall be forgiven; but in any case there is one point on which we shall all agree, and that is in the general expression of our congratulations to those who have been successful in the recent work in the medical schools here, and in our wishes for their future success in the great profession which they have selected. (Loud applause.)

DR. PYE-SMITH: Mr. Treasurer, ladies and gentlemen, it is my pleasure now to propose a vote of thanks to Mr. Balfour for his kindness in coming here to-day and for the address he has just delivered. It is no small sacrifice to leave the House of Commons in the middle of July to give up an afternoon to subjects which are not political. I think that we all like those statesmen who, amidst all their special cares and absorbing duties, still can keep a warm heart for letters like Fox, and Canning, and Gladstone, or for science like the present Prime Minister (applause), or for the divine philosophy like Mr. Balfour. But such appreciation is small and faint compared to the pride with which we look upon those statesmen, who even in the midst of party conflict never forget what is due to themselves and to the nation which they serve (applause). We all, I am sure, read with deep feeling those generous words in which Mr. Balfour spoke of a great statesman whom he had often opposed in conflict, and whom we knew here as our Senior Governor, one who opened the college adjacent, and spoke to us as Mr. Balfour has spoken to-day, and I am sure he will pardon me if I recall our old admiration when speaking of our new. We have had to-day—what I am sure will dwell upon our memories and will be extended, I trust, very widely—the opinion which a man of the world, in the best sense of the term, forms of our pursuits from outside. If I may venture to say so, on behalf of those physicians and surgeons here and our colleagues who teach the poorer branches of science, there is not a word that Mr. Balfour said that we would not have said if we only could have put it as well. With every word of his address we cordially concur. As I listened to Mr. Balfour's voice, and saw his face, I could not help but be reminded of one who, when Mr. Balfour was not yet a Minister of the Crown, was already the minister of the servant of nature, who did a great deal in that research which we have heard so well spoken of to-day, who enlarged the bounds of knowledge, and who raised the character of English science throughout the whole world: and when I refer to Francis Balfour I can only add that we all know the loss that science sustained by his early death—a life too short for friendship, not for pain. Yet, those who had the privilege of his friendship found that even the loss to science was the smaller. I am allowed to thank Mr. Balfour for coming here to-day; I am allowed to thank him for the words of wisdom and inspiration which he has addressed to our prizemen, and for the particularly interesting reference to the needs of our profession which he has put, I trust, before a far wider audience than this; and, in conclusion, I would wish to thank him for the great services that he has lately rendered in Parliament to a Bill in which the medical profession and all teachers of science in London are deeply interested. We thank him for repressing the somewhat perfunctory efforts of those who have opposed it, and perhaps still more for repressing the more dangerous eloquence of its friends. We trust that he will be enabled to see that Bill safely through, and that all attempts to oppose it will fail, for they will be like the opposition which Cowley wrote about against the Royal Society, when he prophesied that they would fail who sought to oppose

"So virtuous and so noble a design
So human for its use; a knowledge so divine."

And may we not believe that the scheme which Cowley put porward early in the seventeenth century for a great university in and for London, which has so long, to the disgrace of our country, been a barren wish, may yet receive its full accomplishment before the end of the nineteenth century. On behalf of the Staff of this hospital, and the students, and of all assembled here, I beg to express our deep thanks to Mr. Balfour for coming here to-day. (Loud applause).

DR. STEVENSON.—It is my privilege to second the vote of thanks which has been proposed by our senior physician to Mr. Balfour, for his kindness on this occasion. You will, I am sure, expect but very few words from me after the eloquent tribute to the medical profession which has been given by Mr. Balfour, and after the eloquent

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tribute that has been given to Mr. Balfour's address by my colleague. There was only one part of the address of Mr. Balfour to which I could possibly take exception, and that was the apology with which he concluded—that he had not made sufficient reference to our students. I can only express to you, sir, the feeling which I am sure will affect every student, and which affects me as a perpetual student of this hospital, that no words which could have been addressed to the students could have been more appropriate than the tribute you paid to the medical profession. I, as well as the teachers, cannot express sufficiently my heartfelt thanks for the way in which Mr. Balfour has spoken of medical research, and I trust that the words which he has addressed to us will long be remembered within these walls, and will bear ample fruit in the future. I beg to second the vote of thanks.

The vote of thanks was carried with acclamation.

Mr. BALFOUR (in reply): Mr. Bonsor, ladies and gentlemen, I have already only too long occupied your attention, and I will therefore confine myself now to expressing my heartfelt thanks both to the speakers who have spoken so kindly of me, and to you who have endorsed their utterances by the enthusiastic reception which you have given to the resolution. Ladies and gentlemen, I give you my heartiest thanks.

Three cheers were then given for Mr. Balfour, the proceedings then terminating.

Subsequently Mr. Balfour went round the wards with the Matron and several of the Staff.

For the benefit of visitors the wards and laboratories were open, and the band of the 2nd Life Guards discoursed sweet music in the Park, which, owing to the pleasant weather, was the favourite resort.

The wards had all been beautifully decorated for the occasion, and were the subject of the most appreciative comment. The fireplace in Job was an artistic triumph.

Tea was served all the afternoon in the two quadrangles in the Surgical Buildings.

Proceedings did not terminate till 6 o'clock, when the band struck up the National Anthem, and put a full close on a most successful afternoon.

Prize Day.

NOTHING is so important in the composition of an article like this, as the exordium. After much thought, however, I have decided to dispense with one. My reason is simplicity itself, so many excellent ones suggested themselves to my mind, that I thought it would be invidious to select one for the honour of appearing in these columns. I was much tempted, nevertheless, by several. A classical, eighteenth century, with a flavour of Johnsonese, was excluded with much reluctance. It began with an

ARGUMENT.

The subject propos'd. The author compares the Prize Distribution to the classical contests of the Antient Grecians and Romans. The importance of the occasion is set out, etc., etc.

Then there was a light, sportive, colloquial one (not without a dash of pathos) which took my fancy immensely—but it would not be fair, after what I have said to print any more examples.

But, as in many other cases, so here; to exclude one difficulty was only to encounter another. If we are not to begin with an exordium, with what *are* we to begin? On mature consideration, I decided, in lieu of an exordium, to talk about the weather, much as a physician, in lieu of a diagnosis, prescribes Pot. Iod. Certainly it was very remarkable. If it be true, as has been asserted, that nothing pleases the gods so much as the spectacle of a brave man struggling against misfortune, the self-sacrifice of Jupiter Pluvius on this occasion can scarcely be over-estimated. Imagine the delight with which he would have viewed some dozens of robed and hooded M.D.'s exposed to a downpour of rain at a garden-party! However, it would probably be wise, when next the occasion comes round, for every one to remember his or her umbrella, as it is rash to calculate on a repetition of such remarkable clemency. Not having been present at the ceremony in the theatre myself, I conceive that I am in an excellent position to give an account of it, but as an official description appears elsewhere in these columns, I felt it would be unfair to the GAZETTE reporter to pit myself against him, especially as I understood that he had the disadvantage of having sat through the whole proceedings. As to the garden-party, I believe it was a very pretty sight. Personally, my regard was bestowed, during a considerable portion of the time, on an imaginary plane about two feet above the surface of the ground, in the vain attempt to find a vacant chair. Then there was tea in the tents. I did not go myself, being otherwise employed, but from a casual inspection of the tents during the course of erection, I should imagine that everything was amply provided for the refreshment of the guests by the thoughtful foresight of those in authority.

As to the robes, they were magnificent and varied; everyone, however, expressed a different opinion on their relative beauties, and it would ill become one who is not a specialist to attempt to give an opinion on so difficult a point. I may, however, be allowed to say that nearly all were fascinated by the coy little bow with gold tassels that dangled over the left ear of the Cambridge M.D.'s.

On the whole, it may safely be said that the affair was a great success, and though I did not stay to the end myself, I am given to understand on excellent authority that nothing short of a vigorous performance of "God Save the Queen" on the part of the excellent band would have induced the company to leave the hospital grounds.

J. M. F. B.

Vacant Appointment.

APPLICATIONS are invited for the post of Lecturer on Biology, and should be addressed to the Treasurer, Guy's Hospital, S.E., on or before Saturday, July 23rd, 1898.

The Biennial Dinner.

THE Biennial Dinner was held this year at the Whitehall Rooms, Hotel Metropôle, on July 5th, and thanks to the efforts of Mr. C. J. Symonds, about 290 Guy's men, past and present—principally past—turned up to renew old acquaintances and discuss old times.

Dr. Goodhart was chairman, and the guests of the evening were—H. Cosmo Bonsor, Esq., M.P. (Treasurer), Sir Joseph Fayrer, Bart., Sir Cameron Gull, Bart., Richard H. Harvey, Esq., J. Shaw Stewart, Esq., and Charles Barclay, Esq. (Governors), Percy Smith, Esq., M.D. (Bethlem Royal Hospital), and the Rev. C. H. Bowden (Chaplain). Sir Samuel Wilks, Mr. Bryant, Dr. Perry, and nearly all the clinical and lecturing staff were present, and as they had invited their corresponding house-surgeons and house-physicians, the present generation was very well represented.

An excellent dinner was served, and at the conclusion, the CHAIRMAN proposed the healths of the Queen and the Prince of Wales, which were drunk with enthusiasm.

Dr. GOODHART then rose to propose the toast of "Prosperity to Guy's Hospital and its Medical School," and said:—The next toast is the toast of the evening. It is a toast that has stirred the emotions of many a previous chairman, and has never failed, and never will fail, to rouse the enthusiasm of meetings of Guy's men in whatever part of the world they may be held. That toast, I need not say, is the prosperity of the dear old place, and the continued distinction of its medical school. Hospital and school—yes, hospital and school. It is an aged couple. They were married years ago, and though the silvery locks of time have added grace and dignity to the features of each, they are neither of them old, for each is possessed of such an inextinguishable vitality that a great meeting of their children like this is enabled to rise up to-night and call them blessed. It is *de rigeur* to-night that the speeches be few and short, but I should not be doing my duty as chairman if I did not in a few words allude to some of the reasons for this vitality of the hospital and school. As regards the hospital, there can be no doubt that it started with a most robust constitution, for there is evidence that very early in its life grandpapa Guy distinguished signs of waywardness in his bairn, for whereas one governor is enough for most men, and even royalty is content with two, Thomas Guy considered it necessary to surround his infant with no less than sixty governors; but he wisely gilded his pill—for all restraints are irksome to the young—with a treasurer, and that you know, implies a treasury. And that was a wise provision, for the boy turned out too well. It was always a child of high ideals and noble aspirations, and ever had more to do with his money than his money could do; and as time has gone on, as you all well know, that treasury of plate that was supposed to be of more than oriental magnificence, and to be gold through and through, has turned out to be only well-gilt silver, and thus our governors have had no sinecure. And we are indeed glad to see here to-night those of our governors who are serving on our School and Staff Committee, that we, who know, and can thoroughly appreciate the splendid purpose of their self-denying labours, may thank them for their loveborn service. We have here to-night Mr. Richard Harvey, Mr. Shaw Stewart, and Mr. Charles Barclay—three names and three faces that in critical times and critical relations have always proved a courteous influence for good, and without whose faces about the place, Guy's Hospital and its Medical School would be poor indeed, they have worked with us and for us so long and so faithfully. We have here also Sir Joseph Fayrer, whose energies even a life on two continents has not quenched, and who now devotes himself, amongst other good works, impartially to the service of our great sister, St. Bartholomew's, and of ourselves. We have also here, of course, our Treasurer, my *right* honourable friend, Mr. Cosmo Bonsor, and last, but not least—although, it must be admitted, of somewhat diminished corporeal presence as compared with my right honourable friend—comes my left honourable friend, the bearer of a name that, whether in his own right as the giver of a splendid prize to our medical school or in that of his father, that prince amongst physicians, the late Sir William Gull, will be honoured at Guy's as long as memory lasts. There are many other reasons for the prosperity of Guy's, but one more must suffice, which it shares in conjunction with the medical school. Now, the medical school also has claims that cannot be disputed to a first-class life policy, for it also started in life as a mature child from what perhaps I may venture to call a Darwinian mother. At any rate, after a critical inquiry into its antecedents, I cannot tell you more about them than that it was a child of the age, and appears, like Topsy, to have growed. But there is this that may be said about it, that it did not come when it was not wanted, as some little infants that I have heard of have been said to do. Well, then, our mother having been born and grown and begotten children, has always taken care to hand on to us her Darwinian principles, chief of these being that in the struggle for existence the best go up, the worst down, and that all her children must be well educated and do well in examinations, and of course they do. Not alone this, they must illustrate the old maxim of *mens sana in corpore sano*, and with the magnificent opportunities afforded to our students by the generosity of Dr. Pavy in building and equipping, at his sole cost and charges, the college gymnasium, and also by the athletic ground at Honor Oak Park—made possible, as I believe, chiefly by the financial genius of our well-beloved Dean, Dr. Lauriston Shaw, from whom, I believe, even our Treasurer might get some tips—it is not surprising that our men descend into the arena and bear away from thence a very fair share of those metallic trophies that represent the laurel leaves of a bygone age And, having thus designated two such reasons for our success, anything more might seem superfluous, but there is yet

one other reason to which I have alluded, and which, highly as I value brains and manly prowess, I value even more. It is that friendly feeling of *camaraderie* and good fellowship that exists between all old Guy's men and their old school, and which matures into a feeling of strong affection between our old *alumni* and the teachers of their day. In Madame Magnan's recollections of the first Napoleon, it is stated that he was visiting a school for the daughters of the officers of his army in which he was greatly interested, and the students pressed upon him to see or touch him, and the officials kept them off. But Napoleon, seeing this, said, "Let them be, let them be; it weakens the head, but it strengthens the heart." As I go about the country meeting our old students, I am always hearing the names of the teachers of the past still spoken of with reverential admiration. I hear of Addison and Bright, of Hughes, of Gull, of Hilton, and so on. A frequent question is, How is the old place? How is dear old So-and-So? How is A and B and C? And while it is certainly one of the greatest pleasures of one's life to see and hear this, I have also become convinced that this remarkable solidarity has so strengthened the heart of our corporate body that it is *the* predominant feature of the success of the Guy's school. Look at that magnificent contribution to our sustentation fund contributed in response to the appeal of Sir Samuel Wilks, and from men, remember, who are not wealthy. Where would that have been without the hearts to back it, and what of power and strengthening, not weakening, of the head does that not foreshadow in the days that are to come? I may not know, or at any rate be able, to define what patriotism is, but it is there, and, Oh! give me the sentiment of love for my old hospital and school; let me cultivate and foster it; and then, though the hospital can never die, so fixed is it in the public life and necessities of the time, yet based upon the love of its old students it will yet live a stronger and a greener age, for it has found out the secret of never ending recuperation in the living embers of the past, and its staff, borne up on the ever-rising tide of that strong affection, will ever be, *must* ever be, one of the first and foremost of its day. I have now to couple this toast with a name and a song. The name can, of course, be no other than that of our Treasurer. I was born, though you might not think it, with a very strong vein of reverence in my character, and, in consequence, I never speak evil of dignitaries. On the contrary, I hold them in the greatest awe, and I never meet Mr. Bonsor without looking up to him. Certainly, much as I might like to, I should never dare to treat him as an intimate friend. Therefore, you will not be surprised to hear that wasting a few minutes the other day at a railway bookstall, and I dare say with some intuitive forecast of the desperate condition in which I was to find myself to-night, that my eye was quick to catch what seemed to be a very colourable unlikeness of our guest. It did not take me long to get a copy of the paper, hoping to find some information by one who *was* an intimate friend, that I might use to-night, and I was not disappointed, for here I found things not known as well as known to me. I found, for instance, that our treasurer is a man of great daring, for he introduces a cheerful face into the sobriety of the bank parlour, and curiously enough this possession of his held up in *Vanity Fair* as a virtue, is the very point on which I am inclined to quarrel with him, for I never see Mr. Bonsor about the hospital without thinking that he ought to oust me out of my physiciancy to Guy's and go in himself, for I am sure that his genial face would often do more for the patient than all my drugs. Going a little farther, I found what I had not quite thoroughly appreciated before, that Mr. Cosmo Bonsor is the very man for his present position amongst us, for he is a typical specimen of a Guy's man, although he may not know it. And why? Because he works hard; he plays hard; and best of all, is a jolly good fellow.

Mr. COSMO BONSOR, in reply, thanked all the members of the staff for the unswerving loyalty with which they had supported the Governors at a very critical time. The last two years they had passed had been very anxious ones, but fortunately now the prospects of the hospital were beginning to improve, for they were on the eve of opening some of the closed wards, thanks to the zeal of His Royal Highness the Prince of Wales, and by the munificence of a Governor they were building a new nurses' home. In the last two years there had been two events which were especially noteworthy in the history of the Re-endowment Fund. First, the active interest of the Prince of Wales, and secondly, the letter written by Sir Samuel Wilkes to every old Guy's man, which has produced such a magnificent result. Turning to internal affairs, he was glad to be in a position to say that, since he had been Treasurer, nothing whatever had been done by the students which reflected the slightest discredit on the institution—a most satisfactory statement. In conclusion, he could only say it was a very great pleasure to work in the interests of Guy's, the first school and hospital the world had ever seen.

At the conclusion of Mr. Bonsor's speech, "Auld Lang Syne" was sung with the greatest enthusiasm, and three cheers were given for the Treasurer.

Dr. PYE-SMITH then rose and proposed "The health of the Consulting Staff." Unfortunately for us, Dr. Pye-Smith's voice does not carry very far, and conversation being brisk, we could not hear his speech.

Sir SAMUEL WILKS then rose to reply, and first remarked on his anomalous and unique position. He had had conferred upon him the honour of being appointed a Governor of the Hospital, and he was also on the Consulting Staff. On looking at the regulations he found that he could dismiss himself at 24 hours' notice, if necessary, and in fact he was in that double position, a man beside himself. Sir Samuel Wilks then spent a little time deriding old time surgeons, pointing out that Sir Astley Cooper was considered a great surgeon, but he was only great compared to his contemporaries. As for example, in doing a lateral lithotomy without cutting open the rectum. For that remark Sir Samuel was

severely rebuked by Mr. Bryant, who said that Sir Astley Cooper and his successors were surgeons of the highest order, and men of the present day could do far worse than read some of his original papers.

The toast of the Consulting Staff having been drank, there were loud cries for Dr. Pavy, who replied in a short speech in his familiar manner.

The proceedings terminated with songs by Dr. Cloud and Dr. Briscoe, and a hearty vote of thanks to Mr. Symonds for his untiring zeal and tact, and to Dr. Goodhart for presiding.

The whole proceedings were over by the decorous hour of 10.15, at least an hour earlier than usual.

No account of the dinner would be complete without a tribute to Mr. Symonds. His energy is always amazing, but it was never put to better use or with better results than on this occasion.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

The Bermondsey Settlement.

DEAR SIR,—As a certain number of Guy's men, in addition to those who can be received at the College, desire to reside within easy reach of the hospital, I venture to appeal to some of these to become residents at the Bermondsey Settlement. We are within easy reach of the hospital, and our buildings and general arrangements secure the comfort of those who come to us. Medical students can give us the most valuable help in many of our educational and social enterprises, which are all of an entirely unsectarian character. In return they would gain experience of social conditions and of dealing with them, which would be of great service to them in after life. The Settlement does not exact more work from its residents than it would be right for a diligent medical student to give, and, therefore, I appeal to some of your readers, who may be drawn to such work as ours, to correspond with me as to terms and conditions of residence.—I am, dear sir, yours faithfully,

J. SCOTT LIDGETT, Warden,

Bermondsey Settlement, S.E.,
11th July, 1898.

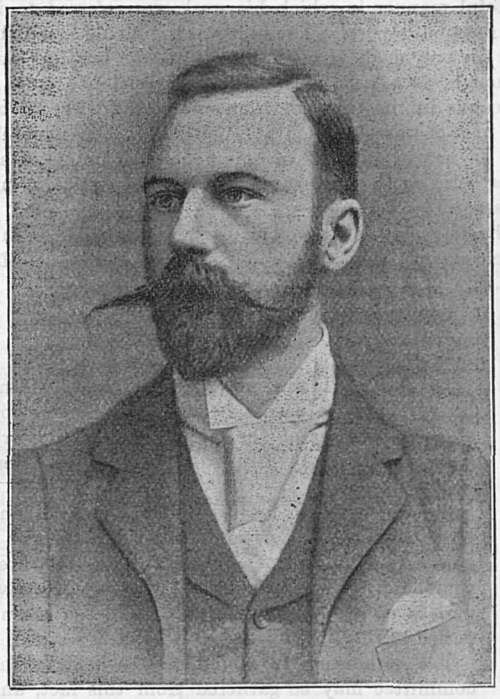
Acknowledgments.

We beg to acknowledge the receipt of the following:—

The London Hospital Gazette, St. Bartholomew's Hospital Journal, St. Mary's Hospital Gazette, St. George's Hospital Gazette, St. Thomas's Hospital Journal, Clinical Journal (weekly), Clinical Excerpts, The Hospital (weekly), Medical Temperance Review, M. R. I. (Manchester Royal Infirmary Gazette), Stethoscope, Treatment, Owens College Magazine, The Therapist, Operiren oder Nichtoperiren bei Krebs-Erkrankunge.

In Memoriam.

FRANZ FORESTER FOSTER FOSTER was born on February 25th, 1864, in Vancouver, British Columbia, where the first few years of his life were spent. He came to England when quite young. He was educated at a private school, "The Philberds," Maidenhead, in Boulogne-sur-Mer and at Innsbrück, in Austria. He entered Guy's Hospital at the commencement of the summer session of 1881, and qualified in 1890, taking the M.R.C.S. Eng. and L.R.C.P. Lond. diplomas. In the year 1885, owing to financial difficulties which were entirely beyond his own control, he was obliged to leave the hospital and suspend his medical studies for a period of two years. In the interval he went to Norwich, and acted as assistant to a medical practitioner there. He



made many good friends at Norwich, and was greatly liked by his patients and the medical men in that city. The two years he spent there were not thrown away, as he gained a useful insight into the routine of general medical practice, which stood him in good stead in after years. Foster returned to Guy's in the year 1887, and finally obtained his double qualification in 1890. For two years he did medical work in England as assistant or *locum tenens*.

In March, 1892, on the recommendation of the Dean and several members of the Staff of Guy's, he obtained the appointment of resident medical officer to the Lady Strangford (British) Hospital at Port Said. The

appointment was originally made for three years, but so highly were his services esteemed by the committee of the hospital, that his appointment was renewed for two successive periods of two years, the last of which should have expired in about nine months' time.

At Port Said, where the greater part of his medical career was spent, he soon became a great favourite with all classes. The conditions of his appointment did not preclude his going into private practice, in which, owing to his professional capability and knowledge of French and German, together with his pleasant and taking manner and appearance, he achieved a great success. At the hospital he was simply beloved by patients, staff and officials. No greater proof of the appreciation with which the committee of the hospital regarded his services could be shown than by their twice re-engaging him for successive periods of two years, and by the grateful manner in which his work was referred to in their annual reports. The post was a difficult one, as he was the only medical man attached to the hospital, and although, as a rule, able to obtain assistance from a colleague in the town, or from one of the surgeons on the men-of-war stationed at Port Said, he occasionally had to act by himself in emergencies—administer an anæsthetic and operate with the sole assistance of his nurses.

The following letter was received by the writer of this article from Lieut.-General Sir John Stokes, R.E., K.C.B., chairman and treasurer of the hospital:—

Spring House,
Ewell, Surrey,
25th June, 1898.

Dear Sir,—I am now, in pursuance of my promise, able to devote a short time to giving you some particulars of the late Dr. Foster Foster's work at the Lady Strangford Hospital at Port Said.

He went out to his post in March, 1892, and has, therefore, filled it for about six years and a quarter. His term of engagement was for three years, and he has twice renewed it for successive periods of two years, nine months of the second period having still to run when he died.

The estimation in which he was held by the committee may be gathered from this fact, and is explicitly stated in their successive annual reports, extracts from which I have the pleasure of enclosing. I also enclose the testimonials received when Dr. Foster's services were engaged in 1892.

I cannot speak too highly of Dr. Foster's devotion to the interests of the hospital, to which he also generously presented, at his own expense, improved means of action against fire.

The unanimous feeling of deep regret at his loss manifested, not only by all the English residents at Port Said, but by those of other nationalities, is of itself a testimony to the high sense entertained there of his skill as a surgeon and physician, and of the social qualities which endeared him to those who knew him. The committee heard of his death with unfeigned sorrow and a keen sense of the loss they and the committee have sustained.

You are at liberty to make any use you please of this letter.—I am, dear Sir, faithfully yours,

J. STOKES.

Whilst at Port Said, Foster did not enjoy very good health, and it is to be feared that the trying climate and conditions of life there were not very suitable to a constitution that was never very robust. He twice had attacks of pleurisy, the last of which occurred in January last. He did not make a good recovery from the attack, suffering greatly from insomnia, and after endeavouring to do his work for a month, he obtained three weeks' leave, and took a sea voyage to Marseilles and back, spending a short time at Nice. He returned very much better for the change, and continued in fairly good health until shortly before his decease.

The following account of his last illness and death was sent home by Dr. Cuffey, surgeon to H.M.S. *Halcyon*, who attended him, and was a personal friend of Foster's:—

"Dr. Foster enjoyed his health until June 5th, on the night of which he was seized with diarrhœa and vomiting, which he attributed to possibly unhealthy food. On June 6th and 7th he was better, but did not feel very well, and on the night of the 7th he had violent abdominal pain. On the 8th, although in pain and very unwell, he went to see a serious case at the Eastern Exchange, and thence came on board my ship with a view to calling me into consultation on the case at the Exchange. While I was preparing to go on shore he was seized with violent abdominal pain, and his condition suddenly became so serious that had death taken place I should not have been surprised. Towards evening he rallied, and I succeeded in bringing him here (his own quarters) without further untoward symptoms occurring. His condition remained satisfactory until 2 a.m. on the 9th, when there was a repetition of his previous serious symptoms, and his life again appeared to be in danger. I diagnosed "internal abdominal hæmorrhage," and treated him accordingly. I raised the question of operative interference, but did not operate because I considered the administration of an anæsthetic in his condition would mean certain death, and in this opinion the doctor of the Egyptian Hospital concurred. Although I was hopeless of his case from the first, I wired for Dr. Milton, of Cairo, with a view to his having the best and most experienced surgical opinion, and also so that his relatives and friends in England might be satisfied he had the very best possible professional advice. Dr. Milton arrived at 4.30 a.m. on the 10th, at which time Dr. Foster's condition was, if anything, better than it had been during the previous twenty-four hours. He was perfectly conscious and rational, and gave great assistance to Dr. Milton in his endeavours to determine the nature of the case, which

was extremely obscure. Five minutes after the conclusion of Dr. Milton's examination, while he was consulting with me over the case in an adjoining room, Dr. Foster quite suddenly collapsed and died, notwithstanding our united efforts to rally him."

The doctor's subsequent examination showed that the actual cause of his death was "internal abdominal hæmorrhage," and that the condition was such that no treatment, surgical or otherwise, could possibly have saved his life. From a later report it appears that a tubercular abscess burst within the abdomen and opened a blood-vessel, which caused the fatal hæmorrhage.

Poor Foster appears to have been aware of the probable fatal termination of his illness, and was quite cheerful and resigned. He appears to have had every possible care and kind attention from Dr. Cuffey and the nursing staff of the hospital. His funeral took place on the evening of the 10th, and was largely attended by every class and nationality in Port Said.

One great friend and patient writes:—"His funeral was just as he would have wished it. The English sailors carried him to the grave, and lovely flowers, of which he was so fond, were all around him. "The Last Post" was bugled over his resting-place, and so we left the earthly remains of our dear friend. I have never seen such universal sympathy shown as on this occasion, for even Arabs had driven out to the cemetery to pay their last respects to one for whom they had so high an opinion."

Without doubt the feeling of sorrow at his untimely decease so freely expressed by every class of his patients and friends in Port Said will be universally shared by his old fellow-students and friends at Guy's. "Franz," as he was always known and called by his chums, "was one of the very best." Full of life and spirits, he was an excellent companion. He had a keen sense of humour and was very quick at *repartee*, but best of all qualities, he had the kindest and most unselfish disposition. His generosity was quite embarrassing to his friends, as he would not allow the smallest act of kindness to himself to pass without recognition in the shape of a handsome present. He was a keen sportsman, fond of both fishing and shooting. Many of his old friends at Guy's may have seen him recently, as he was last home on leave in the summer of 1897, and returned to Egypt about the middle of October last. But for his untimely end he would have returned to England in nine months' time, and probably have settled here in private practice. Had he done so, he would assuredly have succeeded, as apart from the experience he had gained, he had just that kind and sympathetic manner which so greatly helps a medical man to gain the confidence and esteem of his patients. He was the kindest and most devoted of sons and brothers, and those who knew him at Guy's will feel the greater sympathy for his mother and two sisters who survive him to mourn his early death, and to whom he was so much.

List of Books recently added to the Hospital Library.

BY THE AUTHORS—

Dr. T. Stevenson—
- Fvederé's Médecine Légale.
- Kingzett's Animal Chemistry.
- Bland Sutton's Evolution of Disease.
- Geddes & Thompson's The Evolution of sex.
- Weismann's Germ Plasm: A Theory.
- Woodhead's Bacteria and Their Products.
- Jago's Chemistry of Wheat, Flour and Bread.
- Longstaff's Studies in Statistics.
- Brande & Taylor's Chemistry.
- Blyth's Foods.
- Humphry's Old Age.
- Parkes' Hygiene.
- Thudichum's Pathology of the Urine.
- Progress of Medical Chemistry.
- Drugs of India.
- Draper's Medical Physics.
- Weinhold's Experimental Physics.

Dr. George Turner—
- Medical Officer's Report—Cape of Good Hope.
- Report on the Research Work at the Rinderpest Experimental Station, Kimberley.

Added on the recommendation of the Library Committee—
- Neumann's Parasites.
- Heath's Diseases and Injuries of the Jaws, new edition.
- Allbutt & Playfair's Gynæcology.
- Arlidge's Diseases and Mortality of Occupations.
- Barrett's Dental Surgery.
- Allbutt's System of Medicine.
- Sully's Outlines of Psychology.
- Wundt's Human and Animal Psychology.
- Tomes' Dental Surgery, new edition.
- Notter & Frith's Hygiene.
- Schäfers Physiology, vol. 1.
- Husband's Forensic Medicine, 6th edition.
- Ransome's Tuberculosis.

Pass List.

University of Cambridge.

THIRD EXAMINATION FOR MEDICAL AND SURGICAL DEGREES, APRIL, 1898.

PART I.—S. E. Denyer, W. K. Wills.

PART II.—A. B. Carter.

SECOND EXAMINATION FOR MEDICAL AND SURGICAL DEGREES, JUNE, 1898.

PART II.—ANATOMY AND PHYSIOLOGY.—H. Bentley H. Wacher, J. A. Wood.

Re-Endowment & Sustentation Funds.

The Guy's Hospital Ladies' Association has recently paid into the Sustentation Fund the sum of fifty pounds for the support of a maternity bed in Queen Victoria ward for one year. We heartily congratulate the Association upon this fulfilment of one of the specific objects of its existence, and trust the plate over this bed may remain a permanent fixture and find companions bearing the same designation.

A perusal of the third annual report of the Ladies' Association, which we have before us, suggests the immense potentialities this organization possesses for furthering the cause which it is designed to assist. The objects are inclusive, and the scope of operations wide and capable of infinite extension. To provide clothes for destitute patients on their convalescence or discharge from the hospital, and to visit the patients in the wards, these are works which, carried out with efficiency and sympathetic insight, provide just that humanising addition to the functions of a hospital which is so necessary if the greatest good is to be done. Staff, Sisters, Students, have enough to do on the physical side. It will be for the Ladies' Association to devote themselves to the human side. To these visitors a case becomes John Smith or Mary Brown, beings probably full of troubles, perplexities and wants over and above their physical ills, which indeed it may sometimes be little use to cure unless a helping hand is held out to them as they leave the hospital gates, or those dependent on them cared for during their stay in the wards.

To the further object of the Association, the support of one or more beds in the Maternity ward, we have already referred, and the last purpose—to take up any other work in connection with the Hospital, which from time to time may commend itself to a General Meeting of the Association, is comprehensive enough to include any form of enterprise.

In addition to the central body, the Association has the following branches:—Brighton, Clapham, Denmark Hill, Dover, West Dulwich, Eastern Counties, Forest Hill, Surbiton and Wheathampstead, but when this list is compared with the number of centres where the Guy's connection might be consolidated and made fruitful, the possibilities of extension will at once be recognised. We hope some day to see the whole of England covered by the network of this Association's organisation. At the same time we cheerfully admit the evidence of growth furnished by the Report under review, the total number of members having increased from 143 to 274 during the year.

To the Committee of the Association we would say, aim very high and try and impress the imagination of members with the magnitude of the good results which may follow from their work, both directly and indirectly. By spreading the light regarding Guy's far and wide, they will inevitably, from time to time, interest some persons who have it in their power to confer substantial benefits on the hospital. If we may make a practical suggestion, it is that the committee might keep the activity of members from diminishing by means of a monthly or quarterly circular, containing, besides reports of work, all the stimulating material which the history of events at the hospital could afford. We feel sure the hospital authorities would gladly supply the requisite information. A copy of the current Hospital Report ought to be in the hands of every member of the Association.

Into the details and methods of the Association's work or the conditions of membership, we cannot here go, and these are matters which can be better explained by the self-sacrificing Secretary, Mrs. Lauriston Shaw, 10, St. Thomas's Street, S.E. We hope our remarks may be the means of bringing many fresh adherents to the Association to which that lady has devoted herself with such a genuine desire for its success.

Nursing News.

It is with great pleasure that we are able to announce two additions to our list of Prizes for first year's probationers. These prizes are presented by the hospital for the highest marks in the Medical and Nursing Examinations.

The prize list now contains the following:—

The Cazenove Prizes, for highest average marks during the year. 1st., Gold Medal and Books. 2nd., Gold and Silver Medal. 3rd., Silver Medal.

The Keogh Prize for highest marks in Surgical Examination. Surgical dressing case.

Hospital Prize for highest marks in the Medical Examination. Books.

Hospital Prize for highest marks in the Nursing Examination. Books.

Nurse Hyland has been appointed temporary Night Sister, and will come on duty on August 1st.

Nurse Searle and Nurse Loveday have completed their three years' training, and have received appointments as Staff Nurses.

Nurse Lawley having completed three year's training has joined our private nursing staff, and Probationer E. Davies has succeeded her as head nurse in Mary ward.

Nurse Percival has left us, and Probationer Vincent has been made head nurse in John ward.

Nurse Skerman has been appointed Assistant Matron at the Home of the Metropolitan Convalescent Institution, at Broadstairs.

Passim.

IT is with great regret that we have to announce the resignation of Mr. F. E. Walker from the post of Editor of the GAZETTE. Increasing work, to wit, examinations, and recently trouble with his eyes, have made it impossible for him to continue in that capacity. We can only wish him the best of success, and a brilliant finish to an already brilliant career.

WE must confess to a certain disappointment on hearing Mr. Balfour speak on Prize Day. One's own conception of him by repute is that of a master of oratory and debate. The substance of his speech was of the soundest, and, we hope, will be duly appreciated, but his delivery seemed somewhat halting and nervous. However, he certainly looked very ill, and therein may lie the cause.

DR. PYE-SMITH never spoke better. Always fluent, he surpassed himself on Wednesday, his speech being one of the most neatly turned and polished we have listened to for a long while. Mr. Bonsor's hearty style, too, and his matter-of-fact way of at once going to the point was most admirable.

WHENEVER visitors come to Guy's or the wards are thrown open to the public, there is one invariable comment on their cheerfulness as compared with other places. This is one of the highest tributes that can be given to the Nursing Staff, for no one who has lived at Guy's can ever forget the proud and jealous interest which each Sister takes in her particular ward, and it is one of the finest characteristics of the hospital, and one, we are thankful to say, we see no prospect of losing.

It is a matter for congratulation that Queen Victoria Ward was brought so prominently before the eyes of the public on Prize Day, for it has been on the point of opening for so long that people were beginning to regard it as an unattainable ideal. However, it is worth waiting for, the precautions of rounding all corner off and doing away with ledges, and other aseptic ideas having been most thoroughly carried out. We hope the future inhabitants of the ward will make profit by that forethought.

No announcement was received with more enthusiasm on Wednesday than that made by Dr. Shaw, to the effect that owing to the close running of the two competitors for the Surgery Medal, Messrs. F. E. Walker and P. Turner, Mr. Bonsor had generously offered to give two medals. Both men are so excellent and their capacities are so well known and admired, that it would have been a pity to give the doubtful honour of a "proxime accessit." We most heartily congratulate them both.

GUY'S have again come off rather badly in the Inter-Hospital Sports. St. Mary's have won the Shield this year, winning five points out of a possible nine, and St. Bartholomew's and Guy's were equal seconds with two points each. Both events in favour of Guy's, the 100 yards and 220 yards, were won for us by Sime, who is to be most heartily thanked for saving us from utter rout.

MR. A. G. BUTLER, of St Mary's, beat his own record in the half-mile, doing the distance in the excellent time of 1 min. 59$\frac{4}{5}$ secs.

IF a good dinner, good wine and good company make a pleasant evening, then that of the Biennial Dinner was one of the best we have ever spent. It was the more pleasant to the junior men there present from the fact that their elders were so obviously enjoying themselves, though in justice we must say that the younger generation did not suffer from oppresive melancholy, for in some of the speeches they were moved to quite audible enthusiasm.

ONE thing worried us greatly, and that was to see Mr. Symonds ceaselessly walking around seeing after people and getting no dinner himself. Considering the dinner, we felt for him sincerely, and it seemed a pity that *the* man who so largely helped to make the dinner a success should not taste of its good things.

No chairman could possibly have excelled Dr. Goodhart, and it was most thoroughly brought home to one that night with what affection he is regarded by all Guy's men, both old and young. We only wish that many more could have heard his speech, given in his most characteristic manner, and a speech to be remembered for many a long year.

THE Debating Society still lives, and to-night will dine in the College Library under the presidency of Dr. Washbourn. The assemblage will be further graced by the presence of Mr. Pakes

and Mr. Hopkins. Mr. Dunn will be there, if not elsewhere, and Dr. Handley is coming, if possible. As on previous occasions morning dress will be worn.

WE have nothing but praise for the June number of the *Guyoscope*. For studied abstention from anything in the least likely to cause personal annoyance, and for the absence of the slightest vulgarity, this number is unique, but it is to be hoped that this suppression of all licence will not drag down this entertaining little periodical to the dead level of the common place.

OF the July number we can give a more detailed notice. The caricature of Mr. Davies-Colley is excellent and most good humoured, representing him in a most characteristic attitude. The best thing in the number is perhaps the interview with a well-known surgeon on our staff, though for literary merit "A Ode to Tea" surpasses it. The whole number is perhaps not quite so amusing as some of its predecessors, but anybody who realizes the difficulty of being humorous at all times and seasons will sympathise with its staff rather than complain against them.

WE are getting rather tired of the antics of the Examining Board of the College of Surgeons. Their latest freak is to plough a man in Midwifery who has got First Class Honours in the M.B. Lond. Some of these old gentlemen on the Embankment are evidently humorists of the first water.

WE are disgusted to hear that the hospital thief is about again. Tobacco and cigarettes have lately been vanishing wholesale from the dressers' rooms, and on Thursday a sum of money was taken from the coat of one of the ward-clerks, whilst two or three days ago two volumes of Treves's Surgery vanished from the room of a house-physician in college. We hope all men will keep their eyes open and aid the authorities in bringing these blackguards to book.

Debating Society Dinner.

THE Annual Dinner of the Debating Society will be held to-night, in the College Library, at 7.30. Dr. Washbourn in the chair. Morning dress. Price of the Dinner 2/–.

FRANK SHUFFLEBOTHAM, Hon. Sec.

White Fibrous Tissue.

CLINICAL LECTURE BY MR. GOLDING-BIRD, March 2nd, 1898.

GENTLEMEN,—When you and I were in the physiological department I fancy we did not think much of white fibrous tissue. I remember that I did not; I thought it was a very inert material, and that a piece of string would have done just as well. It had not even the respectable elasticity of yellow fibrous tissue. But when I began to study pathology I altered my opinion, as I think you must have already done if you originally entertained the same idea as I did. I should say it is about the cruellest tissue in the human body; and whilst it is of very low vitality it has at the same time a cowardly property of shrinking, and it shrinks until it gets a tight grip, and then there is no pain so agonizing as that which it causes. I think I shall show you that the pain of scirrhus itself is probably almost entirely due to the grip of fibrous tissue. I shall now proceed to abuse white fibrous tissue as roundly as I can from a purely clinical aspect, and then I will see what good I can say for it. You may not recognise fibrous tissue as such in the pathological department, because, like many other evil entities in this world, it sails under aliases. Some of its aliases are scar, cicatrix, cheloid, or when it wants to be very aristocratic it calls itself adhesions. But it is always the same thing. It may occur either superficially or deep. The public are familiar with scars on the surface, but you must always remember that after, for instance, ruptured kidney or liver it is this same tissue which heals it up. When on the surface it by-and-bye takes the place of the tissue that has been lost, for it needs some solution of continuity of tissue before you can get an ordinary traumatic scar. A scar on the surface is covered with epithelium, but deep in the tissues you may have a scar without an epithelial covering. It comes to this, that I think fibrous tissue is the price we have paid for being such highly developed individuals. The lobster can make a new claw, the pigeon can make a piece of brain which has been lost—man can make white fibrous tissue. Man can also, it is true, make a few odd nerve-fibres and muscle-fibres, so histologists tell us, but the latter, at any rate, are not worth anything in practical life. The fact that we can make bone is no exception to this, for after all bone is nothing but calcified fibrous tissue. You may say that I should not speak of repair as a

pathological process, because it is physiological; true, but you may overdo that, as I shall give you instances presently, and then at once white fibrous tissue becomes harmful. In studying this matter of scars to-day, I shall adhere to the clinical aspect of the question. One thing I want you to remember is that white fibrous tissue is very poor tissue; it is badly supplied with blood, though fairly supplied with lymph, and when once it is injured it does not quickly repair like a vascular tissue. Secondly, I want you to bear in mind that it has a very powerful shrinkage. I think the word "shrinkage" is a more apt term than contractility, for it seems to be almost a purely physical hardening action.

To put before you in a few words the life history of a scar I will instance the case of a burn. Here is a child eight years of age, who came in December last for a burn, and went out in January, and comes in for a second time now. Before the first visit the child was playing with matches, when the pinafore caught fire, blazed up and burnt the child on the neck and under the chin. These children sometimes get burnt under the arm-pit and on the hand in the same way. In these cases, if more than a mere vesication, we have presently a raw surface covered with granulation tissue; then this granulation tissue is converted into white fibrous tissue, and finally comes a layer of epithelium, and the wound is healed. Now the longer such a wound is irritated by septic matter or other means, the greater will be the proportion of white fibrous tissue in the scar. In every septic case we get a large amount of scar tissue formed, which fact we have to bear in mind in treatment. Hence you find we are particular to get these burns as aseptic as possible, and as free from irritation as we can get them, even if for no other reason than that there shall be as small a quantity as possible of this objectionable tissue about which I am speaking. On this granulating surface in our patient a Thiersch's graft was put. This is done to hasten cicatrization, and to ensure as little irritation on the raw surface as possible, and that is why it was employed in this little child's case. You are aware that to make a Thiersch's graft we take a razor and shave off a large piece of epidermis and lay this on the granulating surface; and thus by hastening healing and getting less fibrous tissue, we have less subsequent distortion by shrinking to fear, for no sooner is fibrous tissue formed in the body than it contracts. This may not matter very much in certain situations in the body, but in others it matters very much indeed. Some of you have seen children in whom a scar has been allowed full play, and as a consequence the chin and face have been drawn down into the position of almost wry-neck; I have even seen a child's lower jaw so distorted that the teeth projected horizontally. A scar on the cheek may draw the eye down. You may get such a scar on the arm and chest that the arm will be drawn down and so fixed that the child cannot raise it from the body. To overcome the tendency of contraction in all these cases we employ grafting. We will now suppose that the child I have been mentioning has been treated without grafting, and that a large scar has resulted. In the course of weeks or months the child may be brought back with the chin drawn in the way I have described, or if burnt on the hand it may come back with the fingers flexed or fixed towards the palm. You may say you can treat it by stretching the scar tissue, but if you do so it will most certainly go back to its original position, the same shrinkage will reassert itself times out of number; stretching is not a lasting treatment. Or you may say, "Nothing is easier than to treat this case by dividing the scar; here is a child with the fingers drawn down; nothing easier than to divide the fibrous bands across." I reply, nothing easier, but nothing worse, because this scar tissue, as I have said, is very bad tissue for repair, and a large open wound in such tissue would take a long time to heal, and when it does heal it will fill up just as it did before, and you are no better off.

Another element in these cases, especially where the arm-pit is involved, is where the scar tissue drags upon and displaces important structures. I remember Mr. Bryant alluding to a case some years ago in which distortion produced by scar tissue in the arm-pit was so extensive that had a knife been inserted into it to divide it, as seemed tempting to do in this particular case, branches of the brachial plexus that had been drawn out of their course must have been severed. My advice to you is, "Never divide a scar if you can help it." How, then, are we to treat cases of this sort? We treat them on the same principle as you treat a sailing-boat when the wind overfills the sails, that is, let go the sheet; for there is an insertion as well as an origin to every cicatrix, which ramify into the skin around, and take firm hold. The plan then is to make a V incision into the healthy skin at one or both attachments of the cicatrix, and dissect them back: or I may put it in other words and say, dissect up the insertion or the origin of the scar.

So much for the general clinical history of a scar. We will now consider special instances. First of all, what is a surgeon's behaviour in regard to scars? Suppose he is operating, he has to think of what form the scar will be, what its shrinkage is likely to amount to, and the probable value of its vitality. An injury, of course, may leave him no choice: he has to take the scar as he finds it, and in such cases he cannot be much to blame if he leaves a scar which is detrimental to the patient. Let me give you as an example of choice of scar a case which you must have seen often at the out-patient department, namely, a nævus just below a child's eye. How are you to treat it? You may say that you can underpin it. If you do so you will draw down the eye and get ectropion. If you excise it you will get the lower lid still pulled down; yet you can treat such a nævus without getting any deformity. Recognising that scar tissue shrinks, you plan to cheat it, and provided you keep up a sufficiently strong and constant pull against the scar tissue you can generally master it; but the pull must be constant. It is done in this way: with the fine electric cautery stab the skin round without touching the nævus, keeping one-eighth of an inch from it all round. Each puncture should be one-eighth of an inch from its neighbour, and enter the subcutaneous tissue. If you go completely round in this way you will raise up a fortification against circumferential growth, and begin your cure. Now, do not be tempted to do any more than this on the first occasion. Let these punctures heal, and then you will find the child comes to you in a fortnight presenting little white spots all round the nævus, and if you look carefully you will see each little spot radiating at the edges and dragging upon the nævus, with the result that the nævus is becoming anæmic circumferentially. Then you repeat the previous operation further in, it may be two or three times, with a sufficient interval between; but only do a little at a time, and do it methodically. A nævus just below the eye treated in that way will never cause ectropion. If you burn too much at a time you get a slough, and thus you defeat your object and have to do some plastic operation. The explanation is simple: the small amount of scar formed each time is capable of being, and of being kept stretched by the orbicularis muscle, whereas any large amount of scar tissue introduced by burning away more than I have described, at a sitting, will by its shrinkage overcome the muscular pull, and ectropion will result. You may say, why not dissect out the nævus and put in a skin graft? I take exception to the word "skin" graft, because what you graft is epithelium and not skin, unless you do a deliberate plastic operation; and the ordinary "skin" graft may lessen the subsequent contraction, but will not do away with it altogether. So if you want to prevent subsequent contraction it is not wise to depend on epitheliation, which is a better way than skin grafting, because it only partially prevents the formation of scar tissue.

Take another case which comes very frequently in out-patient work, viz., the chronic ulcer. Have you ever followed the course of one of these "out-patient ulcers," as they are called? A woman comes with varicose veins on the inner side of her leg, and a characteristic ulcer. She says it has not existed long. You treat it with applications and tell her to rest. She comes week after week, and you congratulate yourself because it begins rapidly to heal, and new epithelium or "skin" begins to form. Perhaps it goes on until you have half to three-quarters of an inch of new skin, as you call it, all round. Then, though the treatment is the same and the woman is better in health, we will suppose the healing begins to be very slow; you go on with the same treatment, but the ulcer does not respond, the rate of healing now running inversely as the time. Now pass your finger round its edge, and you will find that the ulcer is surrounded by a perfect ring of white fibrous tissue that has been gradually forming; and now you have an ulcer with a hard margin, almost impervious to blood, and unless you do something to that edge you will scarcely ever cure your patient. You must often have noticed the thick callous edges that such old septic ulcers exhibit; and the explanation of the slow healing is that repair will not take place at the edge because of the fibrous tissue which is strangulating the ulcer. An old treatment was with the scalpel to score the edge of the ulcer the whole way round. Directly one did that the fibrous tissue yielded, blood came along these cuts, and the ulcer began to heal. But if you put such a case to bed you can treat it by less heroic means, and get the edge very much softened, and the same result will follow. Here is another thing which the surgeon has to remember in regard to cicatrices. Suppose he is amputating, you know the vessels tend to retract when they are cut, but nerves do not, and unless he deliberately cuts the nerves short at the time, he will very likely get one or more united in the scar, and when it subsequently shrinks, the pain will quite invalid the patient,

and further operation to give relief will be required.

Further, in amputating, the surgeon must keep in mind the poor vitality of a scar. In amputation, especially of the lower extremity, you know the rule is that you must never get a scar over the end of a bone. Why? Because, owing to the poor vitality of the scar tissue, it will be a source of annoyance, because the patient cannot bear his weight upon the part, and in cold weather it may become ulcerated. That is why we are particularly careful to adopt some form of operation which results in a good fleshy flap at the end, with the scar well at one side. Let me point out to you another necessary precaution if you are amputating the little finger of the right hand at or above the metacarpo-phalangeal joint—a precaution not always borne in mind. If you amputate that finger like the others the result will certainly be that presently the scar will get drawn towards the ulnar edge, and when the patient comes again to use his hand for writing the scar will travel over the paper and quickly become abraded. Therefore let the free flap be long, so that the scar may be well against the ring finger. Always have in mind the protection of a scar from possible injury and from cold, because these parts, where fibrous tissue has formed, are very apt to be the seat of chilblains. There is often a burning pain in a cicatrix; and the stump of a limb that has been amputated some patients find as good as a barometer, because the pain varies with changes in the weather. Then there is the æsthetic side to this question of scar, which becomes of importance especially in operations on the fair sex. Such patients desire that you shall make a small scar a neat one, and, if possible, put it out of sight. As an instance, I might mention that if you have to remove an adenoma of the breast, it is very often possible to push the adenoma some distance from its apparent seat, and you can then bring it out and make your scar on the under side of the breast. Again, in operating high in the neck, never make a horizontal incision: if you do, the patient goes through life stamped as one who has attempted suicide. I remember seeing a young adult not long ago in whom such an incision was made for removal of glands in the neck, and as soon as I saw the patient the idea of suicide at once entered my mind. The old depressed and hideous scars on the neck from suppurating tubercular glands, and which stamped the bearer of them as "scrofulous," are now things of the past, but Adams devised an operation for raising and effacing them, so serious a defect were they.

Having spoken of what the surgeon's relations to the scar are, let me quickly run over what may be called the harmful side of scars which we see in practice. The harmfulness of scar tissue will depend on one of two things: its power of shrinkage, or its low vitality. Thus, a man tries to commit suicide by swallowing hydrochloric acid, and comes to you afterwards with dysphagia. He has scar tissue in his œsophagus, and that contracts, hence the dysphagia. Or the acid may have burnt his pylorus, and his pylorus contracts. The intestine has been known to be contracted by the scar resulting from the use of Murphy's button. There is no doubt that you save a patient the risk of an annular stricture if you can do without a Murphy's button. So, also, in tubercular or other ulceration of the rectum a cicatrix is left, which you must afterwards treat by dilatation or other means. A parallel instance may be found in the case of a man falling across a rail and injuring his urethra, the resulting scar contracting and producing a traumatic stricture. Inflammatory stricture of the urethra, though due to no wound, is due to fibrous tissue nevertheless, and carries out its characteristic contraction. All these I have mentioned are examples of annular strictures of the mucous tubes of the body, and they all have to be treated, either directly or indirectly. The usual treatment is to stretch them as far as possible, slowly or rapidly; and whilst sometimes you have to go to the length of operating on them, you cannot operate on these cases on the same lines as on a cicatrix, say, following a burn on the neck, and you have no alternative but to score the ring of fibrous tissue in the same way as I spoke of scoring the edge of an ulcer. But the result will be that the patient sooner or later relapses. You may split, dilate, or divide a traumatic stricture, but the patient will come back again for relief almost as regularly as he pays his quarter's rent! Therefore you cannot talk of curing your patient in that way, and we may fairly say that such traumatic cases are incurable. Such a patient can keep himself in fair condition by learning how to pass instruments for himself periodically, but he must continue to do so. Sometimes the alternative which we have to adopt is an operation which does not interfere with the scar at all, but puts the patient in a better functional position. In the case of the urethra we have to divert the water current by a supra-pubic puncture or a Cock's operation; in the case of

contraction of the œsophagus we have to perform gastrostomy, and do a colotomy in the case of stricture of the rectum. Therefore we are comparatively powerless in dealing with scar-shrinkage in the mucous tubes of the body. In the case of the urethra which has not received any injury it is equally true, as I have just said, that it is the white fibrous tissue resulting from organisation of lymph effusion which is causing the trouble. A man has gonorrhœa, and the inflammation of the mucous membrane spreads to the submucosa, which happens to be spongy tissue; it becomes inflamed, and what happens is practically a local phlebitis: he gets an inflammation of the cavernous blood-passages immediately round the urethra, as I can show you afterwards in a specimen on the table. Organisation takes place until he gets a stricture almost as hard as a piece of cartilage, and so you see it is possible to have white fibrous tissue taking the place of normal tissue without a wound. I will give you another instance of the result of irritation and inflammation, which is of the nature of inflammatory "injury"; it is that of a man who has drunk spirits too freely, and has in consequence a cirrhosed liver. There you find white fibrous tissue; the alcohol has irritated his liver and produced a hypergrowth of "scar" tissue, hence the condition of things known as hobnailed liver. This reminds me of another and terrible disease due neither to injury nor inflammation, but which exhibits one of the worst forms of fibrous tissue contraction that I know of; I refer to scirrhous cancer. Its structure consists of a large proportion of epithelial cells, but the bulk of the tumour is made up of white fibrous tissue. Your patient comes to you and says, "This cannot be cancer in my breast, because I have no pain." But let her wait a little, and there will be very distressing and acute pain when the growth begins to shrink; she will then tell you that it resembles a clawing and burning, both of which are pains complained of in some scars and cheloid to which I will refer presently. I would point out to you that people with softer kind of cancer do not complain of pain so much as those with the hard form or scirrhus, and this, I believe, is because in the softer forms there is not so much fibrous tissue. Where you find the growth running along the lymphatics of the skin of the chest, I need scarely say the patient dies in great agony from the cuirass-like grip of this disease; but again it is fibrous tissue which is in my opinion mainly, if not entirely, answerable for it.

Even when the surgeon has successfully—as far as we can honestly use that word—operated for carcinoma of the breast, fibrous tissue still gives in many cases infinite trouble, from the fact that the scar that remains where the flaps cannot be united is then adherent to the chest walls beneath, and liable to crack under any extra movement of the arm. This we try to avoid by largely undercutting the surrounding skin at the operation, and so we are able to slide flaps from a long distance over the raw area resulting from removal of the breast. Here we get no cicatrix, as we practically perform a plastic operation—a better plan than putting on a Thiersch's graft, which leaves the scar only a few degrees better than if we had left the wound to cicatrize alone.

Let us now see what scar tissue does under the name of adhesions. Suppose a case of intestinal obstruction from a band, where does that band come from? Frequently the answer is that it comes from the peritonitis. But does the peritonitis make the band? No; peritonitis glues one part of the intestine to another, the band comes as a result of constant stretching of the fibrous adhesion, so that while it is true that a band does not come as the immediate result of the peritonitis, yet these adhesions constitute another example of the harmfulness of white fibrous tissue. You may, too, have a universal adhesion of every coil of gut in the abdomen, which gives rise to life-long invalidism, such as may arise after tubercular peritonitis in the young; or more commonly it may come after a peritonitis due to appendicitis. Everything may adhere to everything else, and the patient may live a life of pain and discomfort and constipation. We can do nothing with these cases; therefore adhesions are matters which are to be by no means thought lightly of. Occasionally after peritonitis adhesions will give pain, and their division may be called for. A young woman had her appendix removed by a surgeon on account of appendicitis. I saw her four or five months afterwards, and she was still in apparently the same pain. I had twice before seen similar cases, so I reopened the original wound and found two peritoneal adhesions going across the cæcum, which had grooved it so that it looked like a double hour-glass. I divided the adhesions or bands, and thus freed the bowel; the pain vanished, and she is now perfectly well. But it is not often you can come so readily upon the adhesion which is producing the pain. So, again, in traumatic pleurisy, through a broken rib; such a patient often has constant pain because he

gets a pleuritic adhesion. If you stand behind such a patient with a hand on each side of his chest and tell him to breathe, you can easily detect any difference in the expansion movement of the two sides, such as pleuritic adhesions give rise to. A case happened to me a fortnight ago in which there was an action for damages on account of injury to the chest months before, and the history, coupled with the detection of adhesions in this manner, left no doubt as to its genuine character.

Adhesions in joints you are all familiar with, but I would draw your attention to one fracture-dislocation, namely, Pott's fracture. For some reason or other which I am not able to fathom the whole invalidism following Pott's fracture is attributed to the fact that the ends of the broken fibula are not exactly end to end, a thing which matters not in the slightest degree. But if you only remember Pott's original description of the accident you will see that it is white fibrous tissue that is to blame. Pott not only described his fracture as a fracture of the fibula and the internal malleolus, but he laid stress on the fact the capsule of the ankle-joint was torn, and that there was much blood in the joint, and extravasated around. In treating a Pott's fracture we generally put it up carefully after reduction in plaster of Paris for a long time, and we are too timid in telling patients to walk. But the truth is that after the fracture adhesions have formed in the joint and around, and besides stiffness, there is often the intense burning pain which is associated with white fibrous tissue. The patient says he cannot walk, and in nine cases out of ten he is told to walk when the pain has gone, and if that is adhered to, he will never walk at all. But if we begin passive movement about the fourteenth day, and supplement that with a massage at regular intervals, we shall hear of no further trouble or pain after Pott's fracture.

But after all, gentlemen, the case against white fibrous tissue is not quite so black as my foregoing remarks may have led you to think; there is something good to be said about it. Thus, fibrous tissue is of use to us in union of certain fractures. You may say "you do not want to get such tissue." But sometimes we have to make the best of a bad job. In fracture of the patella we nowadays try to get bony union by wiring the patella. Of course, this practice is not universal, and I should not recommend a man to do it unless he were a skilled operator.

The non-operative treatment is, as you know, to approximate the broken fragments as closely as possible, knowing well that fibrous tissue will form, and on it the patient in future must depend. But lest this union should unduly stretch, you have to considerably restrain all movements for very many months, whereas a case of wired patella can walk in five weeks without any support. So there is ample justification in avoiding a fibrous union if it can be done.

Again, we often rely on fibrous tissue bringing about union in an intra-capsular fracture of the hip, where there is a bad blood-supply; if we do not get such a union we may get none at all. A fibrous union, again, is all important in a case of resection of the elbow-joint; there is an instance of that in Lazarus ward now. We have excised this patient's joint for tubercular disease. It is a desperately bad case, and I had to take away a large quantity of bone; but by putting his arm at first into a straight splint and then moving the union after ten days, we have obtained a good fibrous junction, and this has been bent and stretched systematically, and we are now getting a very passable joint. By this process young people will sometimes get a joint which it is very difficult to distinguish from a normal one.

Again, the surgeon makes use of the shrinkage of scar tissue in the radical cure of hernia, though I admit it was of more importance in the old operations of Wood and Wutzer than perhaps in the more modern methods, in which an alteration in the direction of pressure from within is aimed at rather than the establishment of a fibrous barrier which is likely to yield sooner or later.

In operating for piles, and for prolapse of the rectum, the subsequent bracing up of the mucous membrane, whereby permanency of cure is ensured, is entirely due to the formation and subsequent shrinkage of the scar tissue that results from the cautery wounds that are made.

In opening a suppurating gall-bladder or an abdominal abscess, we at times have purposely to invoke the aid of adhesions in order to prevent the escape of pus into the general peritoneum; we do this by cutting down on the abscess and then plugging the wound with iodoform gauze, and when in a few days adhesions have formed, we deal with safety with the abscess itself. I can give you an instance of where the surgeon finds it of use to play off the shrinkage of one scar against that of another to the patient's benefit. You know in simple hare-lip that a tendency exists after operation for the resulting scar of contraction to produce after a time a notch in the edge of the lip. Various plans are resorted to

to avoid this; but Mirault's plan of making one lateral flap and transplanting it from one edge of the cleft to the margin of the lip on the other side, vivified to receive it, not only adds tissue, but causes the scar to become shaped like the letter L, with the result that the vertical contraction of the one part tending to produce a notch is counteracted by the horizontal contraction of the other part.

Time, gentlemen, only permits me to refer to the pathology of fibrous tissue. Thus, it is subject to atrophy, hence the gradual disappearance, more or less, of scars, and hence also the surgeon's disappointment when he has been relying on the contraction of the scar he has produced by his operation for the lasting cure of his patient. We see this markedly at times in the traumatic herniæ resulting from scars in the abdominal wall. Yet on the whole this atrophy of scars in the long run is in the main beneficial, and so constant is it that it might be stated as a general law that scar tissue tends always to lessen by atrophy.

Scar tissue, again, at times, and for reasons we do not know, immensely hypertrophies, forming cheloid. Alibert described both an idiopathic and traumatic form of this, but the local or circumscribed idiopathic variety usually goes by the name of Addison's cheloid.

With the idiopathic diffuse forms, as sclerodermia morphœa, &c., I am not concerned. Surgeons practically have to deal with those only of traumatic origin, and all that we know on this subject is that cheloid seems more likely to occur where a wound has been irritated by septic or other causes, than where it has been carefully guarded from irritation.

Traumatic cheloid is more common in the dark than light races, and I lately saw a most marked case in an English officer wounded in a bush fight in Central Africa, against natives who purposely cut their faces into tribal and fancy patterns, as the wounds are certain to become extensively cheloid. Did any local influence, bacterial or otherwise, produce the cheloid in the Englishman? His wounds were with native bullets and healed very rapidly, but at once began to thicken, and four months later each scar of entrance and exit was as thick as half a walnut.

I have known a simple blister cause cheloid; the suppurative skin affections as acne, boils, tubercular ulcerations, are common precursors. The fibrous tumour (cheloid) seen sometimes in the lobe of the ear after piercing for ear-rings, is figured in most text-books, and if you should ever be called upon to remove such a one, or indeed any other form of cheloid, remember that though nothing but white fibrous tissue, the persistence with which they will recur after removal almost puts them in the category of malignant growths. There is less reason for touching them than might appear at first, if you but remember that the universal law above mentioned applies to them also; they tend always to atrophy, only they may take years about it.

Closely allied, if not identical with cheloid, are the bulbous endings to cut nerves with which you are all familiar, and which will at times re-form very persistently after removal; and I might add Dupuytren's contraction, with thickening of the palmar fascia, as an example of circumscribed idiopathic cheloid, though not usually regarded as such.

I can now but name other pathological changes of scar tissue to which it is liable, whether or not it has first past through the cheloid condition. The principal of these is undoubtedly epithelioma, seen now and then attacking the cicatrix of an amputation; then we have abrasions, eczema and chilblains. Lately we had in my wards a woman of middle life who presented a condition that in my experience was unique. A few months ago she fell, striking the buttock; a small hæmatoma (apparently) formed, that continued to slowly increase till when we saw her there was a stony hard adherent tumour between the muscle and the skin. Variously diagnosed as fibroma and even scirrhus, it turned out to be a fibroma (cheloid?) studded with tubercle.

Extracts from the Maternity Records.

DURING 1895 the number of cases attended in Guy's Maternity Department was 3,365, and there were 6 deaths. The causes of death were as follows:—

1. Internal hæmorrhage (?).—This woman was aged 39, in her eighth confinement, was delivered of twins, and died two hours afterwards in a state of syncope. No autopsy.

2. Puerperal septicæmia—death on the eighth day.—This case was attended in her confinement by a midwife, and afterwards by a Guy's extern.

3. Bronchitis—death on fourteenth day.—The bronchitis was present at the time of labour.

4. Sapræmia, pulmonary embolism (?).—This was a case of abortion of twins during the sixth month, and the sapræmia was due to retained placenta.

5. Puerperal septicæmia—death on the 5th day.—Two children suffering from scarlet fever were removed from the bedroom two days before the confinement.

6. Septicæmia, pulmonary embolism (?).—There was pyrexia, vomiting, and abdominal tenderness. Collapse and death on eighth day. No autopsy.

During 1896 there were 3,377 cases and 14 deaths. The causes of death were as follows:—

1. Septicæmia from retained placenta—death on twelfth day.

2. Hæmorrhage.—The case was attended for severe accidental hæmorrhage. The cervix was dilated with Ribes' bag and delivery effected with forceps. She rapidly sank from hæmorrhage, which was thought to proceed from the cervix uteri.

3. Cardiac failure.—Case of twin pregnancy at term, and the patient sank *before* the birth of the second child. No cause discovered. No autopsy.

4. Spontaneous rupture of uterus *before* delivery. Hæmorrhage into peritoneum. Autopsy made.

5. Severe aortic disease. Primip., aged 22—death two days after labour. Autopsy.

6. Pulmonary embolism. No details of this case preserved.

7. Hæmorrhage. Woman, aged 39. Tenth confinement.—Severe ante-partum hæmorrhage. Transfusion. Ribes' bag inserted. Cervix did not dilate, so it was incised. Version performed, and after-coming head perforated. Profuse hæmorrhage.

8. Capillary bronchitis—death on the tenth day after labour.

9. Bronchitis and pleuritic effusion—death on the sixth day.

10. Hæmorrhage.—Case of obstructed labour from large size of child. Fatal hæmorrhage during delivery. Source uncertain.

11. Puerperal eclampsia and post-partum hæmorrhage. Case of twins.

12. Puerperal septicæmia—death on fifteenth day.

13. Puerperal septicæmia—death on sixth day.

14. Post-partum hæmorrhage and bronchitis—death on twelfth day.

During 1897 there were 3,358 cases and 4 deaths. The causes of death were as follows:—

1. Cerebral thrombosis (?).—Case of severe accidental hæmorrhage. Forceps delivery. Went on well for forty-eight hours, was then suddenly taken with sickness and vertigo, had a slight fit and became comatose. No autopsy.

2. Hæmorrhage.—Accidental hæmorrhage at the seventh month. Delivery by version. Fatal post-partum hæmorrhage.

3. Septicæmia.—The patient had thrombosis and cellulitis of leg nine days before delivery of a dead child at seventh month. Death forty-eight hours after labour. Leg enormously swollen.

4. Puerperal septicæmia.

Thus, during the last three years—1895, 1896, 1897—the number of cases attended in the Extern Charity has been 10,100, and there have been 24 maternal deaths. This gives a death-rate of 2·376 per thousand.

In the Rotunda Lying-in Hospital, during the seven years 1889–1896, the number of cases attended was 8,997, and the maternal deaths were 67. This gives a death-rate of 7·447 per thousand, or more than three times the Guy's figures. If we include only the last three years of the Rotunda statistics, the maternal mortality is 3·16 per thousand, which is still considerably in excess of our average. Dakin gives 2 per thousand as the "ideal death-rate" of labour when all the preventable deaths from septicæmia are excluded. Of the 24 cases mentioned above, 9 were fatal from septicæmia; and if these be excluded as preventable the death-rate is reduced to 1·48 per thousand, which is considerably below the "ideal" figure. The proportion of deaths due to hæmorrhage (5) is large, and the histories of some of the cases show that a moderate loss of blood after delivery may prove fatal when the patient has already suffered from a severe ante-partum hæmorrhage. With the numerous resources of modern surgery at command, surely this cause of death ought to be eradicated. It is a matter for regret that the cause of death has not been verified in every case by post-mortem examination.

J. W. TARGETT.

Reviews.

A Practical Text-book of the Diseases of Women. By A. H. N. Lewers, M.D. Fifth edition (Lewis), 10s. 6d.

When a medical text-book reaches its tenth thousand, all that a reviewer can do is to stand aside and take his hat off. The book evidently supplies a distinct want, that of a clear elementary account of gynæcology adapted to the wants of the ordinary student. While the book is not so detailed, especially upon the subject of treatment, as the Guy's text-book on the subject, it has the advantages of better print and a larger page, and it may be more attractive to the man whose ambition is not to exceed that irreducible minimum of knowledge which will appease his examiners. The book has been thoroughly revised, and some new illustrations and illustrative cases have been added.

Some points in the Anatomy, Pathology, and Treatment of Intussusception. By D'Arcy Power, M.A. Oxon., F.R.C.S. Eng. (Rebman Publishing Company).

This book is valuable because based on careful original work, of which Mr. D'Arcy Power had already given a summary in his Hunterian Lectures for 1897. With regard to treatment the author advises injection of hot salt solution, not from a syringe but by an irrigator held not more than three feet above the patient. If, however, the case is very acute, if the intussusception is enteric, if gangrene is probably present, or if irrigation has twice failed, he advises laparotomy. If excision of the intussusception is necessary he recommends the use of a button or bobbin when the intussusception is enteric; and Maunsell's operation when the ileo-cæcal and ileo-colic forms.

W. S. H.

Sport.

United Hospitals Athletic Club Sports.

The annual meeting of the U.H.A.C. took place at Stamford Bridge on Saturday, July 9th, when some interesting sport was seen.

F. W. Sime won both the 100 and 220 yards for us, the latter race with three yards separating him from G. H. Coltart.

D. H. Trail secured third place in the Half-Mile, which A. G. Butler won for St. Mary's in 1min. 59⅘sec., beating his own previous record of 2min. 0⅘sec., in 1895.

W. M. Fletcher won the Hurdle Race easily, although he touched the last hurdle, and the Hammer with a throw of 102ft., and gave St. Bartholomew's two events.

Middlesex, through A. E. Oakley, won the Mile, and G. E. Orme secured an event for St. George's with a put of 34 feet.

C. Bennett won the Invitation Race easily, and if pressed would probably have beaten the record time. Munro retired after the fourth round.

St. Mary's secured five events—Butler won the Half and Quarter-Mile; C. E. H. Leggatt the High and Long Jumps, the former with a record of 5ft. 9in.; and R. C. Leaning the Three Miles, which proved one of the best races of the afternoon, as following W. V. Wood until the last lap he got in front about 70 yards from home, and won by eight yards—and so retained the Challenge Shield which they deprived us of in 1895.

100 Yards Challenge Cup Race (holder, H. C. Woodyatt, University; record, B. B. Conolly, Guy's; time, 10⅕ sec., 1868).—Final heat: F. W. Sime, Guy's 1; S. Mason, St. Bart's., 2; G. H. Coltart, Westminster, 3; W. M. Fletcher, St. Bart's., 0; S. Pern, St. Thomas's, 0. Won by a yard; half a yard between second and third. Time, 10⅗sec. The preliminary heats were run off on July 6.

Half-Mile Challenge Cup Race (holder, A. G. Butler; record, A. G. Butler, 2min. 0⅗sec., 1895).—A. G. Butler, St. Mary's, 1; C. H. R. Coltart, Westminster, 2; D. H. Trail, Guy's, 3; F. E. Walker, Guy's, 0; J. A. Nixon, St. Bart's., 0; T. Bates, St. Bart's., 0; C. Battle, St. Thomas's, 0. Butler had the race in hand throughout, and won, running strongly to the end, by half a dozen yards; 30 yards between second and third. Time, 1min. 59⅘sec., a fresh record.

Putting the Weight (holder, N. S. A. Harrison, St. Thomas's; record, W. G. West, St. Bart's., 38ft. 3in., 1889).—G. E. Orme, St. George's, 34ft., 1; J. A. West, St. Bart's., 33ft. 6½in., 2.

High Jump (holder, C. E. H. Leggatt, St. Mary's; record, C. E. H. Leggatt, 5ft. 8¾in., 1897).—C. E. H. Leggatt, St. Mary's, 5ft. 9in., 1; C. B. Adams, Middlesex, 5ft. 3in., 2; H. B Butler, St. Bart's., 0; A. R. M. Brennan, London, 0. The ex-champion jumped splendidly, and broke the existing record.

120 Yards Hurdle Race (holder, H. N. Coltart, St. George's; record, J. Johnson, St. Bart's.; time, 16⅖ sec.) —Final heat: W. M. Fletcher, St. Bart's., 1; C. C. Simson, London, 2; F. M. V. Smith, Guy's, 0; A. E. Allfrey, St. Thomas's, 0. Won easily by a dozen yards. Time, 16⅘sec.

220 Yards Challenge Cup Race (holder, H. C. Woodyatt; University record, H. C. Woodyatt, 22½sec., 1896).—Final heat: F. Sime, Guy's, 1; G. H. Coltart, Westminster, 2; S. N. Crowther, Westminster, 3; H. Marrett, Westminster, 0; S. Mason, St. Bart's., 0. Won by a good yard; five yards between second and third. Time, 22⅘sec.

One Mile Challenge Cup Race (holder, W. V. Wood, St. Bart's.; record, H. A. Munro, Guy's, 4min. 31⅘sec.).—A. E. Oakley, Middlesex, 1; C. H. R. Coltart, Westminster, 2; E. F. Fisher, London, 3; W. V. Wood, St. Bart's., 0; L. G. Nash, Guy's, 0; R C. Leaning, St. Mary's, 0; Atkey, King's, 0; Levick, St. Bart's., 0. Oakley got the lead 200 yards from home, and won by a dozen yards; three yards divided second and third. Time, 4min. 48⅗sec.

Throwing the Hammer (holder, C. I. Graham, St. Mary's; record, C. I. Graham, 102ft. 6in.)—W. M. Fletcher, St. Bart's., 102ft., 1; C. I. Graham, St. Mary's, 97ft. 5½in., 2; M. D. Wood, Guy's, 0; J. A. West, St. Bart's., 0.

One and a Half Miles Invitation Handicap (amateur record, 6min. 53⅗sec. by S. Thomas, May 13, 1893).—C. Bennett, Finchley H., scratch, 1; H. G. Lloyd, L.A.C., 100 yards start, 2; S. L. Sarel, L.A.C., 135, 3; H. A. Munro, United Hospitals and L.A.C., scratch, 0; H. H. Lidyard, L.A.C., 150 yards start, 0. Munro started very lame, and retired after going a mile. Bennett took the lead early in the fifth lap, and won easily by fully 100 yards, while Lloyd beat Sarel by two yards. Had Bennett anyone to take him along in the last quarter he would undoubtedly have beaten record. As it was he was ⅘sec. outside, his time being 6min. 52⅖sec.

Quarter-Mile Challenge Cup (holder, A. G. Butler, St. Mary's; record, A. G. Butler, 51⅗sec.).—A. G. Butler, St. Mary's, 1; S. Mason, St. Bart.'s, 2; E. F. Fisher, London, 0; S. Pern, St. Thomas's, 0; F. W. Sime, Guy's, 0. Mason was leading entering the straight, but Butler closed upon him, and getting the lead sixty yards from home, won by a good yard. None other finished. Time, 52⅖sec. This victory won the shield for St. Mary's.

Long Jump (holder, C. E. H. Leggatt; record, C. E. H. Leggatt, 22ft. 8in., 1896).—C. E. H. Leggatt, St. Mary's, 22ft. 1in., 1; C. C. Simson, Guy's, 19ft. 11½in, 2.

Three Miles Challenge Cup Race (holder, W. V. Wood, St. Bart.'s; record, H. A. Munro, Guy's, 15min. 16sec., 1894).—R. C. Leaning, St. Mary's, 1; W. V. Wood, St. Bart.'s, 2; A. D. Vaughan, St. Bart.'s, 3. Ten started. Wood was leading at the bell, with Leaning second and Vaughan third. Leaning made his effort half-way round, and getting in front eighty yards from home, won by six yards, rather more dividing Wood and Vaughan. Time, 16min. 7⅖sec.

Cricket.

GUY'S v. REIGATE.

Played at Reigate on Saturday, June 25th, and resulted in a victory for the home team by 26 runs. Our batting was terribly weak, only four of the team reaching double figures.

Clarke and Trubshaw were in excellent bowling form, and when their last man came in they still wanted 30 runs to win. At this stage, however, the rain came down, and play was delayed for half-an-hour, and on resuming, the wicket being much easier, we were unable to secure their last wicket before our total was passed. Clarke took five wickets for 30 runs, and Trubshaw three for 12. Scores :—

GUY'S.

A. E. Clarke, c Windsor, b H. Colman	37
F. C. Wetherell, b W. Windsor	0
K. B. Alexander, b F. Morrison	8
K. V. Trubshaw, b W. Windsor	3
M. C. Wetherell, b W. Windsor	0
G. T. Willan, b W. Windsor	39
J. M. Brydone, b W. Windsor	10
H. Durbridge, not out	26
H. B. Walters, b H. Colman	6
A. E. Cawston, b H. Colman	0
H. P. Wiltshire, c & b H. Colman	0
E. W. Strange, c F. G. Nightingale, b H. Colman	1
Extras	3
Total	133

REIGATE.

F. Nightingale, b Clarke	21
G. D. Morrison, b Wiltshire	0
R. W. Keale, b Wiltshire	0
F. J. Nightingale, c & b Clarke	3
J. W. Neale, lbw, b Clarke	21
A. C. Collier, c Alexander, b Clarke	11
H. Colman, c Walters, b Trubshaw	10
W. G. Walby, b Trubshaw	0
G. G. Windsor, b Trubshaw	1
F. Nightingale, not out	28
W. A. Windsor, c Trubshaw, b Clarke	15
F. C. Morrison, c & b Wetherell	29
Extras	20
Total	159

GUY'S v. EASTBOURNE.

Played at Eastbourne on Saturday, July 9th, when only five of our regular team were able to play.

Under these circumstances it is not surprising we were beaten, and after securing six of our opponents' wickets for 72, were unfortunate in the next wicket adding 180 runs, when their innings was declared closed. We were got out just before the call of time, for the miserable total of 154, of which three batsmen were responsible for 101. Scores :—

EASTBOURNE.

R. T. Thornton, c Holmes, b Goddard	19
L. G. Collins, b Goddard	5
H. H. Marriott, b Clarke	5
F. W. Bush, not out	126
C. Wells, c Harris, b Clarke	7
F. B. May, b Clarke	11
G. L. Woodhouse, c Humphry, b C arke	0
E. H. Peacock, c Wetherell, b Willan	68
Extras	11
Total	*252

L. Fishwick, G. L. Whatford and R. Collins did not bat

*Innings declared closed.

GUY'S.

K. B. Alexander, c Thornton, b Wells	33
A. E. Clarke, c Fishwick, b Marriott	19
G. T. Willan, b Collins	27
M. C. Wetherell, c May, b Wells	7
A. Fielder, c R. Collins, b G. Collins	41
L. Humphry, c Whatford, b Wells	14
E. G. Goddard, b G. Collins	9
T. E. Holmes, c R. Collins, b G. Collins	0
H. A. Dennant, b Collins	0
W. H. P. Barrow, not out	0
J. Harris, b Wells	0
Extras	4
Total	154

Guy's Hospital Lawn Tennis Club.

THE CHAMPIONSHIP COMPETITION.

In the first round F. E. Fremantle beat P. Cole, 6–2, 6–2 ; E. L. R. Kelsey beat E. W. S. Rowland, w.o. ; G. T. Willan beat A. E. Ring, 6–1, 6–2 ; H. K. Lacey beat C H. Bubb 6–2, 6–4 ; A. C. Ransford beat F. C. Wetherell, w.o. ; P. S. Mandy beat G. S. Robertson, 6–1, 6–0 ; M. C Wetherell beat L. G. Nash, 6–0, 6–0 ; F. G. Cross a bye.

In the second round Kelsey beat Fremantle, 6–4, 6–1 Lacey beat Willan, 3–6, 6–2, 6–2 ; Wetherell beat Cross

GUY'S v. STAFF.

Played at Honor Oak on Wednesday, June 29th. Dr Fawcett brought down the team, which consisted of Messrs. L. E. Shaw, J. W. Washbourn, H. G. Bryant, T. G. Stevens, J. H. Starling, C. H. Fagge, J. Fawcett, and H. T. Hicks. The last mentioned taking the place of A. P. Beddard, who was prevented from playing at the last minute.

The Hospital were represented by P. S. Mandy and H. K. Lacey, F. G. Cross and E. L. R. Kelsey, M. C. Wetherell and G. T. Willan, R. H. J. Swan and E. R. Ring. A good match ended in a win for the Hospital by six matches to three.

The best thanks of both teams are due to Mrs. Shaw for the admirable way in which she entertained them.

In the Handicap Competition the fifth or semi-final round has been reached. The fourth round resulted as under:—

G. T. Willan (owes 1–6), beat M. A. Collins (receives 3–6), 5–7, 11–9, 6–3; C. N. Jupp (receives 2–6), beat M. C. Wetherell (owes 3–6), 6–2, 6–4; E. L. R. Kelsey (scratch), beat J. S. Steele Perkins (receives 1–6), 6–4, 6–2; P. S. Mandy (owes 15), beat C. B. Thompson (receives 2–6), 5–0, 6–2; so that in the semi-final Willan meets Jupp, and Kelsey meets Mandy.

GUY'S v. WEIGHTON.

At Anerley on Saturday, July, 1. The Hospital were beaten by eight matches to one.

P. S. Mandy, E. L. R. Kelsey, H. K. Lacey, F. G. Cross, A. C. Ransford and J. E. L. Bates represented the Hospital.

United Hospitals' Rifle Association.

U.H.R.V. v ARTISTS R.V.

June 20th at Runemede.

U.H.R.A.

	200	500	600	Total.
C. De Z. Marshall (St. Thos.)	33	32	33	98
A. C. Brown (St. Bart's) ...	26	32	27	85
C. R. Brown (St. Bart's) ...	30	28	27	85
A. Pearson (Guy's)	31	30	24	85
A. De Morgan (St. Mary's) ...	29	26	26	81
H. C. Jones (St. Mary's) ...	25	31	24	80
T. H. Glover (Guy's)	30	27	23	80
H. R. Beale (St. Thos.) ...	26	27	20	73
Total				667

Artists R.V.

Sergt.-Inst. Stirling... ...	29	32	31	92
Sergt. Sharp	31	32	29	92
Pvt. Keeson	33	31	27	91
Pvt. Gillman	29	31	29	89
Pvt. Townsend	29	31	29	88
Lieut. Armitage	26	31	30	87
Lieut. Edlmann	29	28	30	87
Corpl. Underwood	30	29	27	86
Total				712

Result:—Lost by 45 points. Pvt. Marshall (St. Thos.) headed the list with the fine score of 98.

U.H.R V. v COOPER'S HILL R.I.E.C.

June 23rd at Runemede.

U.H.R.V.

	200	500	600	Total.
C. De Z Marshall (St. Thos.)	33	33	24	90
W. R. Read (St. Bart's) ...	30	27	32	89
N. Carpmael (St. Thos) ...	27	31	27	85
A. C. Brown (St. Bart's) ...	27	27	25	79
H. C. Jones (St. Mary's) ...	26	24	28	78
A. De Morgan (St Mary's)	31	27	15	73
C. R. Brown (St. Bart's) ...	27	22	22	71
H. Upcott (St. Thos.) ...	24	25	17	66
Total				631

R.I.E.C.

Capt. Shields...	28	26	26	80
T. K. North	27	31	18	76
A. G. Heming	26	29	20	75
E. Lambson	23	23	27	73
R. H. Duke	21	27	20	68
J. C. Wood	26	19	22	67
A. C. Crawley Boeng ...	30	16	15	61
A. F. Bayley	27	15	12	54
Total				554

Result:—Won by 77 points.

From the Gazette's Special Pathologist.

NOTICES.

H. R. M., Hastings.—Tubercle bacilli are present in the sputum in small number.

O. R. T., St. Leonards-on-Sea.—The tumour in the breast is a very dense adeno-fibroma. The surrounding breast tissue is much indurated, and this condition has led to cystic dilatation of some of the tubules. There is no evidence of malignant disease in any part of the gland.

H., Ramsgate.—The growth of blood serum after incubation consists of Klebs-Löffler bacilli and cocci, arranged in groups and short chains.

H., Aberystwyth.—No tubercle baccilli could be found in the centrifugalized deposit of the urine.

O. J. C., Blackheath.—Tubercle bacilli are present in the sputum in small number. PATHOLOGIST.

Appointments.

CIVIL.

Beddoe, D. M., F.R.C.S., has been appointed House Surgeon to the London Throat Hospital, Great Portland Street.

MILITARY.

Surgeon-Captain R. Bevan, 1st Volunteer Battalion, The Buffs (East Kent Regiment), has resigned his commission.

Births.

CULMER.—On June 19th, at Headington, Oxford, the wife of J. W. Culmer, M.R.C.S., L.R.C.P. Lond., of a son.

MANNING.—On June 30th, at Hoddesdon, Herts, the wife of T. Davys Manning, M.B., B.S. Lond., of a son.

SILK.—On July 4th, at Devonshire Street, Portland Place, W., the wife of Frederick W. Silk, M.D. Lond., of a son.

Marriage.

MITCHELL — SUTTER. — On June 23rd, at Holy Trinity Church, South Hetten, Thomas Ellis Mitchell, B.A., M.B., B.C. Cantab., of Oldhill, Staffs, to Mary Helena, third daughter of George Skelton Sutter, of Port Elizabeth, South Africa.

Ed.—H L. E.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

July.

Sat. 30.—Messrs. Howse and Jacobson's take-in; Drs., E. E. Parrett and E. J. Tongue; Cl., F. Shufflebotham.
G.H.C.C., H., Hos.-Scho., home.

August.

Mon. 1.—Bank Holiday. Medical Office Closed.

Wed. 3.—Messrs. Davies-Colley and Symonds' take-in; Drs., C. E. Hicks and B. W. Moss; Cl., H. D. Peile.

Sat. 6.—Library Closed.

Wed. 10.—Messrs. Lucas and Lane's take-in; Drs., C. T. Hilton and G. S. Simpson: Cl., J. A. Glover.

Papers by Guy's Men.

Blood-pressure in the Insane. By Maurice Craig, M.A., M.D. Cantab., M.R.C.P. Lond.—*Lancet*, June 25th.

Hernia in Infancy. By A. H. Tubby, M.S. Lond., F.R.C.S. Eng.—*Clinical Journal*, June 29th.

Clinical Lecture—Infective Endocarditis. By J. W. Washbourn, M.D., F.R.C.P. Lond.—*Ibid.*

Case of Multiple Prostatic Stones. By C. H. Golding-Bird, M.B., F.R.C.S.—*British Medical Journal*, 2nd July, 1898.

Guy's Hospital Gazette,

JULY 30, 1898.

The Effect of Nasal Obstruction upon Laryngeal Function and upon Sleep.

CLINICAL LECTURE BY MR. SYMONDS.

GENTLEMEN,—The subject of my lecture to-day will be drawn from the Throat Department, and rather than deal with any one case, I shall consider a group of cases to illustrate some leading symptom.

The influence of altered nasal respiration on the functions of the larynx, or, to be more precise, the effect of nasal obstruction, in producing hoarseness and weakness of the voice, is a subject worthy of consideration. I shall associate with this the influence of nasal obstruction upon rest. Numerous illustrations will be seen every week in the out-patient department, but the greater number are among private patients, for in this class we find public speakers, clergymen, teachers, and those to whom the loss of voice is a matter of the greatest moment.

The first case is that of a man of thirty-five, who was sent to me by a medical friend on account of hoarseness. He was an artist and was engaged in teaching. For some time his voice had been gruff and hoarse; he spoke as if he had a cold in the head, and he said his friends constantly greeted him with the remark, "I see you have another cold." His voice was hoarse, he became tired at the end of a lecture, and had constantly to "clear" his throat. On examining his larynx, it appeared healthy; the cords were perhaps a little red and woolly—I should hardly like to say thickened—but not to any extent. He was a strong healthy man, and got through any amount of work. On examining his nose, it was clear that there lay the cause of his trouble; both inferior turbinals were enlarged, and a probe could be easily buried in the swollen mucous membrane. By posterior rhinoscopy the appearance was shortly this (fig. 1):—in each posterior naris could be

fig. 1

seen the enlarged posterior ends of the inferior turbinals, looking like small mulberries. On

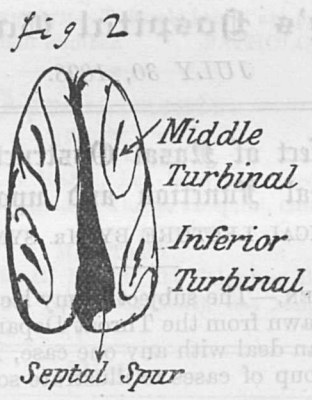
applying cocaine the mucous membrane was observed to shrink as usual, but a good part of the thickening remained. The effect of cocaine was to free the passage through the nose, and render him more comfortable. In conversation he took his breath in through the mouth, and he was certain he kept the mouth open at night, for the throat was dry in the morning. The problem, therefore, was to establish nasal respiration. To effect this the cautery was first applied to the mucous membrane over the inferior turbinals, and the posterior ends of these bodies removed by the cautery snare. He was afterwards directed to practice nasal respiration. The result was most satisfactory, as all the symptoms disappeared, and he was able to continue his teaching in comfort.

Now you see this hoarseness was entirely due to the obstruction of the nose causing the man to become a mouth breather, and so keeping up a chronic irritation of the larynx. You may well ask why a patient should reach the age of thirty-five before experiencing any great inconvenience. I will explain presently why, in my opinion, you may only find the disability, on the patient arriving at adult, or even advanced years.

The next case is that of a clergyman in Battersea, who was sent to me by a medical man; he complained to me that he was hoarse, that he found he lost his voice towards the end of the day's work, and that then his throat would ache; he was afraid that he would be unable to do the work necessary in such a populous parish. I examined his larynx, and found no disease there, but I found his nasal respiration obstructed, and on examining his nose I found a condition of the turbinals, such as I have described in the previous case. I might remark that this is not a simple swelling, but is a true hypertrophy; I have a specimen here, and will send it round side by side with a normal turbinal body. By the way, I use the term "turbinal body" to cover the whole structure, including bone, the important vascular layer and the mucous membrane; both specimens were macerated in the same way, so as to be suitable for comparison. Here you see masses of hypertrophied tissue, the so-called "mulberry masses," especially notice the lobulated character of the parts. To return to our case—on examining this clergyman I found hypertrophied turbinals; I removed by the cold snare the enlarged posterior ends, and applied the cautery in other parts, with the result, that, without touching his larynx, his voice was restored, his breathing became free, and he was greatly improved. I have not seen him lately, nor heard the final result. I will now send round an example, a very pretty one, of a large mass removed from the nose at out-patients, showing how very large these masses may become.

Up to now I have brought forward cases to illustrate how enlargement of the turbinals may cause nasal obstruction, and how this acts on the larynx and produces hoarseness from the irritation set up by the cold air; and here let me add, that this is a very common condition.

The next is a very interesting case of a student, who was here a few years ago, and had previously entered at the Guildhall for singing, which, he had had to give up, owing to his hoarseness, and his inability to take the high notes. He came to me to see if anything could be done for him. On looking from the outside I could see that his nose was narrower than it ought to be, that is, that the transverse diameters of both passages were smaller than normal. On looking more carefully, I found on the left side a projection from the septum. Here is the kind of thing I mean (fig. 2). It is a ridge on a septum



deviated to the left. It caused obstruction, because of the narrowness of the cavity. Questioning him further, I found that he was not aware that he was a mouth-breather. I asked him to make observations and come and see me again; he did so, and told me he was in the habit of sleeping with his mouth open and that his mouth was dry in the morning. He came into the ward and I sawed off the projecting mass with a Bosworth's saw. The result quite outran my expectations, his singing voice was entirely restored, he could breathe through his nose and he no longer snored at night.

Another septal case—though hardly finished yet—is a clergyman, a voice-user, depending on this for his living, who had been hoarse for a

good many months. For the last four months he had been touring in the Mediterranean and Palestine, but was not much better. When he came to see me I noticed that he stammered a little, and that his nose was too narrow. I examined him and found a little redness of the vocal cords. On looking at his post-nasal space I found his turbinals healthy, but there was an outgrowth from the anterior part of his septum on each side considerably obstructing the air passages. I also found that he slept with his mouth open, that his mouth felt dry in the morning, and that he suffered constantly from colds in the head. Under gas, I was fortunate enough to cut off both spurs during one administration, though one can't usually do that. He is being trained in speaking and breathing; his voice is stronger and he breathes more easily at night. If he catches cold he still has some difficulty, but I hope with care and training, as he is a sensible man, that when he has fully established his nasal breathing, his voice will be as strong as ever it was.

Another case is that of a man from the Midlands who came to see me. He had been in very poor health lately and had become thin; so bad was his voice, that when he had to read the minutes of the Board to which he was secretary, he could hardly be understood. I examined his larynx and found it a little congested, but I also found abundant nasal polypi. At the first operation I removed a large number; at the second at few more; at the third, a year later, there was only one small one; and the fourth time he came to see me he was quite well. And here I may add that he had twice been under chloroform and had polypi removed by forceps. Three months after his first visit to me, all the laryngeal symptoms had disappeared, he was in good health, and was sleeping better. A point I would particularly direct your attention to, is the striking effect of these ailments on the patient's general health. I may add that he completely recovered his vocal power.

There was sent to me a few days ago, a man aged fifty, who was looking very ill indeed. He was very pale with red margins to his lids, and looked as if he might be the subject of phthisis, or of malignant or renal disease. He complained of loss of appetite, imperfect rest and hoarseness. So bad did he look, that I sent him to Dr. Hale White for an opinion as to the condition of his lungs. He reported that there was perhaps a little bronchial congestion, as indicated by a few râles, nothing else. I removed several big polypi from his nose, and sent him away. He came again to see me two days ago, he was very pleased with the result of the operation, and I was surprised to see the improvement in his health; he was still hoarse, but he could breathe through his nose, was getting better rest, and his appetite was much improved.

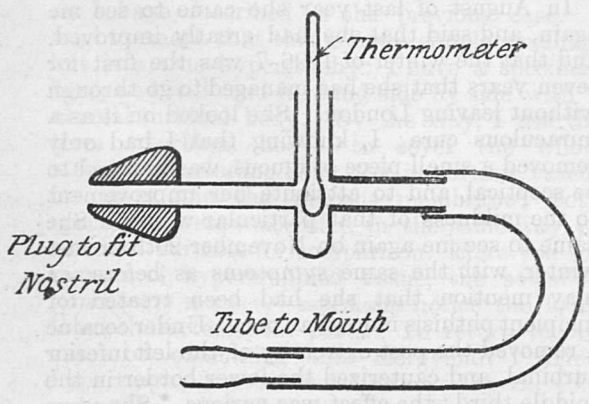
While discussing laryngeal cases depending on nasal affections, I will mention a more severe type, perhaps beyond the limits of this lecture, but so important that it is well worth study. This was a lady of thirty-five, a high-spirited, energetic, nervous Jewess. She complained of laryngeal irritation, the slightest provocation brought on a severe attack of coughing, during which she would become "blue and almost strangled," in the attempt to get rid of some mucus, and thus would go through a long attack of misery with absolutely no result. For the last seven years, she had had to spend the winter at Bournemouth; in November, 1896, as she felt an attack commencing, she came to consult me, I examined the larynx and pharynx, and found them quite healthy. I then examined the nose, and found it narrow, and, on the right side, it was further narrowed by a septal spur. On the left side I noticed a collection of mucus far back; a curious observation confirmed my idea that the nose was the cause of the trouble. On passing a probe into the nose to examine the mucus, the patient exclaimed "That's a long probe of yours, doctor, I can feel it down here" (pointing to her larynx). The dislodgement of this mucus was followed by immediate relief, and though I was not clear as to the nature of the case, nothing was done beyond prescribing an alkaline lotion, with a view of preventing accumulation of mucus.

In August of last year she came to see me again, and said that she had greatly improved, and that the winter of 1896–7 was the first for seven years that she had managed to go through without leaving London. She looked on it as a miraculous cure; I, knowing that I had only removed a small piece of mucus, was inclined to be sceptical, and to attribute her improvement to the mildness of that particular winter. She came to see me again on November 20th of last winter, with the same symptoms as before. I may mention that she had been treated for incipient phthisis more than once. Under cocaine I removed the post extremity of the left inferior turbinal, and cauterized the lower border in the middle third; the effect was curious. She came back saying that she was worse, that since the operation she had not been able to go out, or to sleep. I congratulated her, for I thought it

proved that I had really got at the centre of irritation; in a few days she was better. On the former occasion it had been impossible to deal with the right turbinal; so now I gave her gas, and sawed through and removed the spur, and then snared off the hypertrophied posterior end of the turbinal. On January 3rd she came to say that she was perfectly well, the symptoms had all disappeared, she was sleeping well, her appetite was good, she had gained half a stone in weight, she had been out to balls and concerts —a thing she had not been able to do for seven years—in fact she could go about like an ordinary person; all her friends exclaimed at the marked change in her health; indeed, it is the most striking case I have ever seen. If I were to pursue this branch of my subject, I might bring before your notice a number of interesting cases, but we must now pass on to some further considerations.

I will first mention a very interesting experiment, devised by Dr. Greville MacDonald, of King's College Hospital; he performed a series of experiments to show the importance of the changes undergone by the air during its passage through the nose. To accurately estimate these changes it was necessary to collect air which had passed through the nose without having entered the lungs. Relying on the fact, that on taking a deep inspiration through the mouth the soft palate rises and shuts off the naso-pharynx from that part which lies below, he contrived an ingenious apparatus which I have roughly drawn on the board (fig. 3). You will

Fig. 3



observe that it consists of a T-shaped tube; at one end is a vulcanite nozzle, which plugs the right nostril; a little distance from this the tube expands and here the bulb of a thermometer dips into the lumen of the tube; the other end of the tube enters the mouth. When the subject of the experiment takes a deep breath, the nose is at once shut off from the throat as I explained, so that, the right nostril being blocked, the only way for air to enter is through the left nostril, round the naso-pharynx, and then out through the right nostril into the tube leading to the mouth. Thus you see the air passes through the nasal cavity *only*, before reaching the thermometer. Now, it was found that, after a few inspirations, the temperature of the air, as indicated by the thermometer in the tube, was altered during its passage through the nose. In order to breathe a very cold air, the experimenter went down to the frozen meat stores at Deptford, where the temperature was 7° C., and he found that after passing through the nose the temperature of the air was raised to 28° C. Continuing his experiments, he found that at 7° C. the temperature was raised to 34° C.; at 12° C. to 35° C.; at 20° C. it was still 35° C. He then performed a very important counter experiment. He inspired air at 45° C., and found that the temperature was actually *lowered* during its passage through the nose; *e.g.* air at 45° C. became 33·6° after its passage through the nose: he accomplished this by inspiring air which had been drawn through a heated leaden tube. So that these experiments show that the mucous membrane of the nose is capable of raising the temperature of the inspired air, and even of depressing it when too high.

A French experimenter showed that whilst air drawn through the mouth into the lung registered 33° C., on expiration when drawn through the nose it registered 35° C., a difference of two degrees. Dr. MacDonald's experiments also showed that the air was increased in humidity in traversing the nose. He was able to estimate the amount exactly.

All these experiments show that the air before it enters the larynx is intended to be warm, hence the immense importance of nasal respiration; this influence is due chiefly to the inferior turbinated bodies, which are eminently arranged to serve as conductors of heat. Roughly they consist of a large number of arteries, of large venous sinuses near the surface, and a dense network of capillaries all over. Another interesting point is, that the variations in size of these bodies depend on the coldness of the air; the colder the air, the greater the size, showing that they are exactly adapted to their purpose, viz: warming the air on its way to the larynx.

I once made unintentionally a very interesting experiment while attempting to relieve a patient of obstruction. The nose had previously been operated upon by removing an outgrowth of the septum, but he was no better; at last, I removed the inferior turbinated bone on the right side; he got perfectly well of his obstruction, but complained that though he could breathe through his nose, the air struck so cold on his pharynx and larynx, that it set up an irritating cough.

In another instance of recurrent colds in the head following on hypertrophy of the turbinal bodies, the patient was so distressed in his breathing at night, that he passed rubber tubes through his nose under cocaine, and experienced immediate relief, but the coldness of the air irritated his larynx and kept him awake. These two interesting facts confirm an observation I have arrived at after much experience—that you should be very careful in deciding to perform turbinectomy; you relieve the nasal obstruction, but the subsequent results may be anything but pleasant. In some cases permanent and disagreeable dry catarrh results. As I mentioned before, you will very likely ask—Why should a patient of 50 or so, suddenly develop a chronic laryngitis due to old nasal obstruction? The explanation is simple, a certain amount of obstruction has existed for a long time, then a cold—especially an influenza cold—causes some hypertrophy and narrows the chink still more, and thus actually determines symptoms. Remember, then, in cases of chronic laryngitis and hoarseness, to attend to the nose, put the nose breathing right, and you will probably cure a number of cases.

Now a word about the effect of nasal obstruction on sleep. I have lately seen a most striking case; a clergyman, who was under Dr. Spurrell, of Hampshire. He was pale, looked as though he had not slept for a long time, had lost his appetite and become nervous. Dr. Spurrell thought these symptoms might be due to obstruction of the nose and sent him up to me. Well, on merely looking at him, you saw that his nose was, as they say, "all across his face"; as a matter of fact, one nostril was completely blocked by deviation of the septum. Under gas, I cut off the projecting portion of the septum, and Dr. Spurrell told me afterwards that the man was soon relieved of all his symptoms and his sleep had returned.

A curious case was that of a woman of sixty, who could not sleep on account of obstruction of the right nostril. She was a patient of Mr. Roper, my first clinical assistant, a capable and able man, and the case was looked on as a purely neurotic one. The patient had had influenza, and it was considered that this had left her in a highly nervous condition. It seemed, however, to me justifiable to do something; there was a projection of the septum on the right, which was known to have existed most of her life, the question was whether it was the cause of her symptoms; this was quickly decided by removing with the knife a cartilaginous outgrowth. The woman returned and reported herself well. I take it that there is only one way to read the case—the influenza left a hypertrophy of the mucous membrane, which still further narrowed a naturally small aperture.

Let us next consider the effect on rest at night and sleep of adenoids. Watch a child, the subject of severe obstruction from adenoids, when asleep, you will see it struggling for breath, and tossing about from side to side, they go on thus till they are blue in the face, and then they wake up and turn over. You know the state into which such a child gets; now remove the adenoids and see the change, the child's character is entirely altered, the sleep is unbroken, the child is quiet, the peevishness disappears, the fickle appetite gives way to a healthy one, and the colour and complexion are so different, that after three months you would hardly recognize the child. I attribute these symptoms entirely to the imperfect oxidation of the blood. I was lately asked to see a little girl in Mary, a case of laryngeal obstruction for which a tracheotomy had been done, and the difficulty was, that directly the tube was taken out, the child became blue and restless. I advised Mr. Hicks to pass an O'Dwyer's tube through the larynx, this he did very neatly and successfully, and the child went to sleep for twenty-four hours; since then, the intubation has been repeated, and the child has gone ahead markedly, and is already fatter and stronger.

I have been treating a man who caused me much anxiety. He was suffering from laryngeal obstruction; his cords were fixed and there was a mere chink between them. I suspected cancer below the vocal cords. The man's aspect was that of one suffering from phthisis, or cancer, or renal disease. I think he was an old alcoholic. I did not like to touch him. However, he got worse, and vomited everything he took, so I performed a tracheotomy and inserted a big tube. He has gained two stone in weight, is ruddy, sleeps well, and is a different man. The question of removing his larynx is now before us.

We have now considered the effects of nasal obstruction on laryngeal functions, and also how it affects rest and sleep.

There is another very important question: if we consider the mechanics, or rather the physics, of the nasal passages, we shall realize that the air is liable to differences of pressure, that nasal obstruction may be due to altered tension with corresponding altered fulness of the vessels; and so one might get engorgement with consequent hypertrophy, causing adenoids and hypertrophied turbinals. When, gentlemen, we consider the many troubles that these obstructions give rise to, I think you will conclude that I have not exaggerated the importance of attending to nasal obstruction in our patients.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

CASES UNDER DR. PYE-SMITH.

PHILIP 21, 26. Bright's disease.
22. Hodgkin's disease.
23. Aortic and mitral disease.
25. Mitral disease.
27. ? Renal colic. ? Appendicitis.
28. Intrathoracic growth.
30. Phthisis.
33. Carcinoma ventriculi.
36. Acute myelitis.
38. Cirrhosis of liver.
40. Ruptured abscess of lung.

MARY 27. Gastric ulcer.
29, 32. Chronic dyspepsia.
33. Mitral and tricuspid regurgitation.
34. Phthisis.
35. Aortic disease.
36. Exophthalmic goître.

CASES UNDER DR. GOODHART.

PHILIP 5. Tubercular ulceration of cæcum. Colotomy.
7, 20. Lobar pneumonia.
8. Intestinal obstruction. Growth.
12. Sciatica.
14. Mitral disease. Hypertrophy and dilatation.
16. Profuse otorrhœa. Mastoid abscess. Operation.
17. Pleurisy with effusion.
19. Lead poisoning. Gout.

MARY 13, 15. Chronic Bright's disease.
14. Hysteria.
16. Proliferating papillomata of peritoneum. Primary in ovary.

MARY 17. Phthisis.
19. Gangrenous stomatitis. Broncho-pneumonia.
21. Empyema.
24. Mitral regurgitation.
Cot 53. Broncho-pneumonia.

CASES UNDER DR. HALE WHITE.

MARY 3. Aortic stenosis and regurgitation. Mitral regurgitation.
6. Appendicitis.
7. Gall-stones.
11. Gall-stones.

STEPHEN 2. Leprosy.
25. Aortic stenosis and incompetence. Mitral stenosis and regurgitation.
34. Adherent pericardium.
35. Alcoholic heart and cirrhosis.

In the Surgical Wards.

CASES UNDER MR. HOWSE.

NAAMAN 6. Epithelioma linguæ. Excision.
11. Æt. 24. Carcinoma recti. Colotomy.
17. Infantile paralysis of leg. Stokes-Gritti's amputation.
18. Otitis media. Sinus thrombosis. Death.

CHARITY 13. Mastoid abscess. Antrectomy.
19. Pigmented warts in axilla. Excised. Melanuria.
19. Carcinoma mammæ. Excised.
20. Compound sebaceous cyst. Excised.
Cot C. Hydrocele of cord. Excised.

CASES UNDER MR. DAVIES-COLLEY.

LUKE 2. Old empyæma. Sinuses. Estlander's operation.
8. Cystitis.
9. Retained testis. Castration.
13. Æt. 81. Hæmaturia and pain in loin. Nephrotomy. No cause discovered.
15. Recurrent sarcoma of orbit. Orbit cleared out.
21. Recurrent melanotic sarcoma in glands in neck. Primary growth on hand excised in 1897.
Crib. Ileic volvulus. Laparotomy. Death (æt. three days).

LYDIA 2. Cleft palate.
3. Carcinoma mammæ. Excised.
4. Spina bifida. ? Syringo-myelocele. Anæsthesia and gangrene of toes of left foot.
Cot E. Hare-lip and cleft palate. Plastic operation on palate.
Cot A. Hare-lip and cleft palate. Operation on lip.

Cornelius 4. Fractured femur.
6. Suicidal hanging. ? Cerebral hæmorrhage. Death.
8. Penetrating wound of ankle.

Cases under Mr. Lucas (for whom Mr. Lane).

Job 19. Tuberculous ankle.
20. Enlarged prostate.
21. Strangulated femoral hernia. Kelotomy. Death.
22. Ununited fracture of humerus. Musculo-spiral paralysis.
24. Tuberculous knee.
Lydia 10. Exostosis of tibia.
11. Carcinoma mammæ. Excised.
15. Flexion of knee after excision.
15. Hip disease.
16. Moveable kidney. Nephrorraphy.
Cot C. Talipes varus. Tenotomy.
Charity 2. Æt. 29. Carcinoma recti. Inguinal colotomy.
5. Fractured femur.
21. Adenoma mammæ. Excised.
22. Fractured ribs. Pleurisy. Hæmaturia.
Cot. Imperforate anus. Left inguinal colotomy. Death.
Astley Cooper 8. Cut over knee. Suppurative arthritis.
13. Traumatic synovitis of knee.
22. Compound fracture vertex. Trephining.
23. Traumatic temporal aneurysm. Excised.
24. Run over. Ruptured mesentery. Gangrene of gut. Laparotomy and resection. Death.
32. Penetrating wound of knee. Suppurative arthritis.

Cases under Mr. Golding-Bird.

Lazarus 7. æt 45. Mammary tumour. ? Inflammatory. ? Carcinoma.
8. Mastoid abscess.
8. Lupus of foot, scraped.
11. Carcinoma recti.
13. Vesical hæmaturia. Bilharzia hæmatobia in urine.
15. Stricture with chronic extravasation.
Martha 1. Periosteal sarcoma of fibula. Stokes-Gritti's amputation.
2. Post scarlatinal ankylosis of both elbows. Excision of right joint.
3. Appendicular suppuration.
6. Appendicular fistula. Removal of appendix.
19. æt. 77. Carcinoma mammæ.
20. Fractured neck of femur.
22. Genu valgum.
Cot B. Postpharyngeal abscess. Acute. Incised.
Astley Cooper. 11. Fractured femur.
15. Fractured femur. Compound fracture of humerus.
Cornelius 1. Cut ulnar nerve. Suture.
2. Cut tendons and ulnar nerve. Suture.
3, 9. Fractured femur.

Cases under Mr. Jacobson.

Dorcas 1. Old injury to ankle. ? Pott's fracture.
Cot A. Talipes equino-varus.
Naaman 22. Chronic cystitis.

Case under Mr. Symonds (for whom Mr. Dunn).

Luke 16. Epithelioma linguæ. Excised.
17. Caries of ribs.

Cases under Mr. Lane.

Martha 14. Moveable kidney. Nephrorraphy. General enteroptosis. Death. ? Acute gastric dilatation.
15. Congenital syphilis. Destruction of nose. For plastic operation.
Job 12. Misplaced semilunar. Excised.
13. Spinal caries. Psoas abscess. Incised. Tuberculous hip. Drained.
14. Ununited fracture of tibia.
15. Organising nævus in loin. Excised.
Dorcas 4. Jaundice. Laparotomy. Distorted liver.
5. Meningocele. Radical cure.
5. Leontiasis ossea.
5 and Clinical P. R. Gall-stones. Cholecystotomy. Secondary hæmorrhage. Death.
Cot B. Bilateral congenital dislocation of hip. New joints formed.

Cases under Mr. Dunn.

Martha 10. Old dorsal dislocation of hip.
12. Lupus erythematosus. Papilloma in scar.

"Clinical."

John 4. Pelvic abscess.
6. Mitral and aortic regurgitation. Pyrexia.
7. Hæmaturia. ? Cause.
8. Perityphlitic abscess.
11. Chronic tubal nephritis.
12. Diabetes.
13. Gall-stones.
16. Cerebro-spinal meningitis.
Miriam 17. Lobar pneumonia.
18. Pericarditis. Aortic regurgitation.
21. Pelvic tumour.
22. Perityphlitis.
23. Cysts of the peritoneum. Operation.
24. Acute tubal nephritis.
26. Tuberculous peritonitis. Intestinal obstruction. Operation.
27. Basal phthisis.
29. Peritonitis.
30. Tuberculous kidney.
32. Mitral regurgitation.
Cot 33. Diphtheria. Tracheotomy.
34. Marasmus.
35. Cerebro-spinal meningitis.
36. Broncho-pneumonia.

Notes of Four Cases of Puerperal Eclampsia.

THE cases recorded here have recently occurred in the Charity in rapid succession. Mr. Hodgson and Mr. Fitz-Hugh have furnished the reports of Cases I. and II. respectively, which were under their care, while Messrs. Shenton and J. G. Taylor have supplied the notes of Cases III. and IV. up to admission into the hospital.

CASE I.—Eliz. F., æt. 33, was admitted into Dorcas ward on April 15th last, suffering from puerperal eclampsia. She was a primipara, about full term, and her pregnancy had run a normal course until the morning of April 15th, when she awoke feeling rather unwell; at 9 a.m. she was suddenly taken with a fit, and this was followed by six others in the course of the day. At 9 p.m. she was admitted into the ward, and was then comatose; there was some œdema of the eyelids and ankles; pulse 116 and high tension, temperature 101·6°. Soon after admission patient had a typical fit, clonic contractions beginning in the muscles of the right side of the face, and spreading to the left side and then to the muscles of the arms, legs and trunk; the head and eyes deviated sometimes to the right and sometimes to the left. The fits lasted about two minutes each. Chloroform was administered, and the patient was kept slightly under the anæsthetic for the next five hours. On vaginal examination, there was no œdema of vulva, and the os uteri was patulous, and admitted two fingers easily; the membranes had already ruptured, and the head was felt presenting in the L.O.A. position. It was decided to hasten labour, so the urine was drawn off—it was found to contain a large amount of albumen, but no blood—a vaginal douche given, and with the help of Champetier de Ribes' bags, the cervix was dilated, forceps put on, and the child delivered alive about 3.45 a.m. The placenta came away easily, and was normal in naked-eye appearance. During the next six hours patient had four more fits, but these were of shorter duration and of less intensity than the preceding. Croton oil ♏i., et Mist. Pot. Brom. ℥j., 4tis. horis, and milk diet were ordered. Eight hours after delivery the urine was carefully drawn off, and was found to contain only a trace of albumen, although the previous specimen went nearly solid on boiling. There were no casts, and the urine was practically sterile. On centrifugalisation, the deposit showed renal epithelial cells, but scarcely any blood. Patient continued in a semi-comatose condition for two days, and very slowly returned to consciousness, and even on her discharge on May 3rd, complained of feeling dull and stupid, although otherwise practically well.

CASE II.—E. B., æt. 27, was admitted May 28th, in an unconscious condition from fits. Her history was as follows:—Has been married ten months, and is now eight months pregnant. Has always been healthy and never had fits before. On the morning of May 28th, at 10 o'clock, she suddenly fell down in a fit, which lasted a few minutes. During the day she had seven more fits, being unconsious in the intervals after the third. She was brought up in a cab from Penge and reached the hospital at 7 p.m. Immediately on admission she had a fit, and chloroform was administered pending her removal to Dorcas. She was noticed to have some œdema of the eyelids and legs, but not any considerable amount, her tongue was very badly bitten and much swollen. In the ward a catheter was passed and about a pint of urine withdrawn. This was found to be solid with albumen on boiling, and contained blood; the urea was found to be 1·25 per cent.; temperature 101·6°, pulse 120, of high tension. On examination, labour was found to have started, the os being of the size of a shilling, and the membranes were ruptured when the cervix dilated well. Fits occurred at 9 p.m. and 10 p.m.. Eventually the child was delivered by low forceps at 12.30 midnight, the patient being intermittently kept under the influence of chloroform. The child was very feeble and only lived sixteen hours. After delivery patient had three fits, the last at 10 a.m., May 29th. During the night Chloral and Pot. Brom. each gr. xx. were given twice. There was no difficulty in getting the patient to take plenty of milk and liquids. The morning after delivery the temperature fell to normal and remained down. On June 2nd, five days after delivery, the urine contained 1 per mil. albumen; on the 3rd ·5 per mil., and patient had completely recovered consciousness. From this point a complete recovery was made, and patient was discharged on June 18th. The albumen decreased in amount as follows; –5th, ·75 per mil.; 8th, ·3 per mil.; 17th ·2 per mil. Throughout the whole time of her stay at the hospital there was no diminution in the amount of urine passed, the smallest amount was 22 ounces on the 7th of June, the largest, 72 ounces, on the 2nd.

CASE III.—C. C., æt. 19, primipara, had about reached full term on June 3rd. During that day she several times vomited and complained of headache. In the evening delivery was normally effected. Immediately the placenta came away, and without any cry, the right side of her face underwent a toxic contraction followed in a few seconds by clonus, and then by clonic contraction of the muscles of the head, neck and limbs. The face during the fit was livid, the eyes turned upwards slowly oscillating, and the general appearance that of deep anæsthesia under gas. In a few seconds these symptoms disappeared and the patient became comatose, losing all reflexes, breathing stertorously, and foaming at the mouth. The teeth were tightly clenched, but the tongue not bitten. Pulse rapid and of high tension. This stage lasted about five minutes. The stertor then gave place to quieter breathing, the ocular light reflex returned, and later the conjunctival reflex. The patient, however, could not be roused, but remained in a deep sleep for half-an-hour and then partially recovered. An hour later a similar convulsion occurred, and on recovery from this she was able to answer questions, but seemed drowsy. Several fits followed, and at 1.30 a.m. on June 4th, she was brought up to the hospital, having two fits on the journey in an ambulance stretcher. On admission,

the face was puffy, and there was a little œdema of the legs, but the vulva was not œdematous. A soft systolic bruit could be heard at the apex of the heart. A specimen of urine, obtained with the catheter, was of sp. gr. 1020, contained blood, and on boiling became almost solid with albumen. Between 1.30 and 2 o'clock she had two fits; the pulse rate was 150 per minute during a fit and fell to 110 between the fits. At 2, the temperature was 101·2° F., and a third of a grain of morphia was given subcutaneously. At 2.30 dry cupping of the loins was performed; at 3 mij of croton oil were given. At 4.30 she had had eight more fits; her temperature was 100·8° F., and the respiration rate slow, at one time being only eight per minute. Two more fits occurred by 6 a.m. and chloroform was then administered, in small quantity and intermittently; no more fits followed, but the pulse gradually failed and the trachea became full of mucus, and in spite of stimulation with strychnine and oxygen, death took place at 11 a.m. The temperature shortly before death was 104° F.; the croton oil was ineffective. At the autopsy, much œdema of the lungs was found; there were subendocardial hæmorrhages in the left ventricle of the heart, and extensive capillary hæmorrhages throughout the liver, and to a less extent in the spleen. The kidneys were a little congested and mottled.

CASE IV.—E. J., æt. 39, multipara, was delivered of twins on July 8th. Labour was normally conducted, and the placenta appeared healthy. On July 9th she felt ill early in the morning, and at 11 a.m. she had a fit, followed by two others. She was then brought up to the hospital and had a fit in the cab on the way. On admission she was found to be a stout woman, comatose, and breathing heavily. The legs and conjunctivæ were œdematous, but not the vulva. There was no cardiac bruit, but the first sound was prolonged. The pulse was of high tension, and the rate, 60 per minute. Temperature 97·4° F. A fit occurred at 2.45 p.m. and was of short duration. Chloroform was administered at 3. Twenty-four ounces of urine were drawn off, and the sp. gr. was found to be 1010; reaction acid; blood present; albumen 9·0 parts per mil.; and urea ·4 per cent. At 4.30 p.m. chloroform was discontinued, and in 35 minutes a fit occurred and the anæsthetic was resumed. The following enema was given at 8 p.m.: Pot. Brom. gr. xxx., Chloral, gr. xx., Aq. ad. ʒx. At 8.30 chloroform was again discontinued and there was no fit for an hour and ten minutes. There were then three in rapid succession. Chloroform was given and the enema repeated shortly afterwards. At 10.50 the administration of chloroform was stopped for the last time and no more fits occurred. On the 10th the enema of Bromide and Chloral was repeated in the early morning, and enemata, consisting of half-a-pint of normal saline solution, were given every two hours as long as they were retained, and then less frequently. The patient remained asleep, but could be roused enough to swallow; milk and soda-water to the extent of a pint and a half in the twenty-four hours were given, with two ounces of brandy. The urea was increased to 1·4 per cent. Temperature 100·6° F., pulse 112, respiration 32.

July 11th. Patient still drowsy. Does not take food so well. Temperature 103·8° F., pulse 140, respiration 44. Urine, sp. gr. 1016; acid; urea 1·3 per cent.; albumen 1·4 per mil. No blood present. Temperature 104·8° F., pulse 144, respiration 48.

12th. Patient is jaundiced. Does not take food well, and is comatose. Urine: urea 1·7 per cent.: albumen 9 per mil. No blood; bile present. Calomel given to open the bowels. Towards midnight the pulse failed, and strychnine was injected. On the 13th strychnine was again given, but without effect. The jaundice was deep, the liver dulness being normal. The patient died at 6.15 a.m., the temperature rising before death to 106·4° F. At the autopsy capillary hæmorrhages were found throughout the brain; the liver was flabby and of a yellow-green colour. Dr. Stevens examined the liver and kidney microscopically and made cultivations. In the liver the capillaries were seen to be congested, and there were areas of cell degeneration throughout the whole organ. A few bacilli were seen, which, when cultivated, turned out to be bacilli coli communes. A similar growth was also obtained from the kidney, but cultivations of the heart blood and of peritoneal serum were sterile. In the kidney some desquamation of tubular epithelium and some casts were observed. The autopsy was made five hours after death.

It is notable that in the two fatal cases the convulsions did not appear until after delivery, contrary to the usual experience of the mildness of postpartum eclampsia.

In Cases I. and II., in which there were eight and fourteen fits respectively, the patients were treated successfully by the administration of chloroform and potassium bromide and delivery of the child.

In Case III, in which, as far as could be gathered from the friends, about ten fits occurred before admission, this treatment was departed from, and morphia was given, as recommended by American and Irish authorities. Owing to the depression of the respiration it was not advisable to continue this treatment, and especially as the convulsions did not cease, chloroform was used. The advocates of morphia give half a grain as a first dose, and repeat it in two or three hours; and larger doses than this have been given, so that it might be said that in this case enough of the drug was not administered to arrest the convulsions. It is, however, the belief of those who observed the case that the slow breathing and accumulation of mucus in the lungs, produced by the morphia, affected the prognosis unfavourably. As regards the dry-cupping, also employed in Case III., very slight improvement, if any, followed, and this method would seem to deplete the circulation without even the advantage of freeing the body of possibly poisonous blood. Indeed, in the two fatal cases the pulse of high tension became of low tension rapidly enough in the progress of the disease without artificial help.

The case against bleeding is well made out in the Reports for 1871, where Dr. Phillips concludes, "that

bleeding has no claim to be regarded as a remedy for puerperal convulsions." And that "the chief reliance should be placed on chloroform, which prevents the recurrence or diminishes the violence of the paroxysms." Most authorities hold this view at the present day. An interesting illustration of previous treatment is found thirty years earlier than this, when a patient of Dr. Lever's, in Petersham ward, was treated with ten grains of calomel, antimony, abstraction of 122 ounces of blood in seventeen hours, and salivated with a subsequent course of mercury. She was a "very large, muscular Irishwoman," and recovered. In the same paper is found a table showing the weather for each day in which a case of convulsions occurred.

In Case IV., in which there were five fits before admission, chloroform, potassium bromide and chloral were successful in arresting convulsions, and recovery was confidently expected when jaundice appeared, the condition becoming worse from this time. This was apparently a similar case to those described by Norris as cholæmic, the changes in the liver being marked. He quotes Kaldenbach as including jaundice among unfavourable symptoms. The urine in this case was instructive, showing the diminution of albumen and blood, and increase of urea with cessation of the convulsions. The saline enemata were given with a view to assisting the kidneys by flushing; and certainly the urea excretion rapidly improved from ·4 per cent. on July 9th to 1·4 per cent. on the 10th, the saline injections having been commenced at 1 a.m. on the 10th.

E. I. S.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

The Biennial Dinner.

DEAR SIR,—In your excellent account of the dinner, you have fallen into two errors which I beg space to correct. The number dining was 249, not 290. Though not so large a number as in 1896, when 273 dined, it was generally considered an unusually successful evening. This was largely due to the fact that the speeches concluded nearly an hour earlier than usual. So there was plenty of time for friends to move about and chat. The second point is, that it was Mr. Coulson who sang the song, which Dr. Pakes played. Mr. Briscoe gave the second song.—Yours very truly,

CHARTERS J. SYMONDS.

The New Pharmacopœia.

WE acknowledge with many thanks some hints for the new Guy's Pharmacopœia, from "E.R.F." We have forwarded them to the Secretary of the Pharmacopœia Committee.

Pass List.

University of Oxford.

FINAL EXAMINATION FOR THE DEGREES OF BACHELOR OF MEDICINE AND SURGERY.

J. M. Fortescue-Brickdale.

FIRST EXAMINATION FOR THE DEGREES OF BACHELOR OF MEDICINE AND SURGERY.

PART III.—ANATOMY AND PHYSIOLOGY.—G. G. Davidson.

M.B. London, May, 1898.

FIRST DIVISION.—A. J. Cleveland.

SECOND DIVISION.—W. N. East, R. T. Fitz-Hugh, R. Kay, D. L. Smith.

Histology Examination, July, 1898.

W. E. J. Tuohy, A. H. E. Wall, C. H. Robertson, A. P. Piggot, R. C. Lawry, J. T. Hicks, H. M. Goldstein, K. Anderson, L. H. Moiser, H. T. Palmer, G. W. Smith, N. N. A. Houghton, F. C. Robinson, E. G. Goldie, H. Tipping, J. D. Pearson, T. M. Smith, P. W. Hamond, E. W. Strange, C H. Denyer, W. W. C. Jones, C. H. Dawe, H. C. C. Mann, J. W. Gromitt, A. W. Iredell, A. E. H. Pakes, P. P. Cole, L. G. Nash, G. Moir, H. S. Jones, J. Braithwaite, R. Willan, E. Couchman, S. L. Pallant, C. R. Shattock, W. G. Parker, L. J. Hughes, C. H. Bubb, A. W. Soper, J. C. Curtis, F. P. Hughes, W. C. Lewis, C. E. Adams, H. L. Shelton, E. Faulks, R. E. Brayne, R. C. Poyser, C. M. Anthony, H. N. Grose, G. S. Robertson, A. J. Beadel, H. W. Wallis, E. N. Jupp, G. F. Humphreys, M. B. Taylor, C. M. L. Cowper, W. W. Read, A. H. Turner, R. T. Collins, E. H. Paterson, M. C. Wetherell.

Elementary Anatomy, July, 1898.

H. Tipping, E. N. Jupp, H. C. C. Mann, L. O. Card.

Vacant Staff Appointments.

Demonstrator of Physiology.

Anæsthetist to the Dental Department (Tuesday morning).

Anæsthetist to the Ophthalmic Department (Thursday afternoon).

Applications are invited from candidates for the above posts, vacant by the resignation of Mr. Hopkins and Dr. Jerman Scott, and should be addressed to the Treasurer, Superintendent's Office, on or before Wednesday, August 3rd.

Particulars of duties and remuneration may be obtained on personal application to the Dean.

Passim.

THE next number of the GAZETTE will be published on August 20th, it being now the long vacation—a peaceful period of the year with no news.

IT has been a frequent complaint that photographs of the Staff are so difficult to obtain. We think this complaint has been made in ignorance, for the Janitor, Mr. Morley, in the office of the Medical School has, and always has had, an excellent collection of portraits of the majority of the Staff of this hospital. They are all taken by Jerrard of Regent Street, are good likenesses, and moderate in price. So we hope this information may be of some service to those who were not aware of the fact.

IN a flippant paragraph regarding the examinations in Midwifery at the College, which appeared in the GAZETTE of last week, we did the College of Surgeons a great injury, so we are told, by casting upon them the burden of responsibility of the chancy results of the aforesaid examinations. The responsibility rather lies with the College of Physicians. We hasten to apologise, and in fairness, must say that the treatment of men up for Surgery is always of the most courteous character. While talking of things surgical, however, we should advise the Senior Members of our Surgical Staff to note any remarks on the diagnosis of congenital dislocation of both hips in the next number of the *Guyoscope*.

AFTER an absence of twelve years, the Inter-Hospital Shooting Cup has come back to our Smoking Room once more, we hope to stay, and the whole team are to be most heartily congratulated upon their fine performance, of which a fuller account will be found in another column. We think it is pity, however, that only volunteers are allowed to compete, as we have many excellent shots at the hospital who do not wish for the sometimes doubtful glory of a volunteer's uniform, and prefer to shoot for the love of shooting only, and as private individuals.

WE have before us a Special Number of the *Middlesex Hospital Journal*, published upon the occasion of the approaching completion of the new Medical School Buildings and a new Cancer Ward. The magazine is one of the best London hospital journals and is always good reading, but this number is better than any we have yet seen. It is entirely untechnical and deals with the history of the Hospital and Medical School, in a most fascinating article by Mr. Sidney Coupland, and contains besides an article on Sir Charles Bell, by Mr. Stephen Paget. The number has now been placed in the Club Reading Room.

THE decision of the House of Commons in the matter of the Vaccination Bill seems most hopeless. Parents may now, without suffering any penalty, refuse to have their children vaccinated upon their affirming a conscientious objection to the operation. This renders public vaccination in poor and ignorant districts absolutely useless, and the faddists are already rejoicing over a great victory. We hope they will have a rude awakening one day, for such a retrograde step before the eyes of the whole world after nearly a century of steady progress, makes us ashamed of the public intellect.

THOSE who are concerned with the feeding of children will be interested in the statistics of various foods used in the hospital during the past twelve months. For the thirty-one cots in the hospital, 16 dozen bottles of Mellin's Food, 16 dozen of Benger's, and 40 dozen of Humanized Milk have been used, while other foods have for the present fallen out of fashion, with the exception of two dozen bottles of Horlick's Malted Extract.

MR. BALFOUR'S eloquent speech has met with a speedy response, for an anonymous donation of £1,200 has been made to the hospital for the endowment of research work. We must thank this gentleman, who by the way is one of our Governors, most heartily for his munificence, and hope his example will be followed by many others in the near future.

THOUGH none of the Guy's men came in first in any of the events at the Inter-Hospital Cycling Tournament at Sheen House last Saturday, by steady good work among the team all round in every event, we scored the greater number of points, and carried off the Cup. This is much more satisfactory than a victory by a one man team, and we hope next year will see a repetition of this most excellent performance.

AT the Water Polo Final we were not so fortunate, being beaten by St. Bartholomew's by

two goals to one, after a hard match. The whole season, however, has been most successful, and a general review will be found in the next GAZETTE.

ON Thursday last, at St. Mary's, Ealing, Mr. C. D. Edwards was married to Miss Janet Paterson, who in her hospital days was Sister Mary. We are sure that all at Guy's will join in wishing them both a long life and a happy one.

Nursing News.

At a meeting of the House Committee on July 27th, Nurse Bell (Charity ward), and Nurse Harris (Mary ward), were given appointments on the Staff, having completed their three years' training.

Miss Maud Calvert, who trained at Guy's, and has been for some time Matron of the Branch Seamen's Hospital, Victoria and Albert Docks, has been appointed Matron of the New Children's Hospital at Athens, and takes up her work there on November 1st.

From the Gazette's Special Pathologist.

ALL specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Diphtheria specimens are to be labelled *Immediate*.

Postal Orders to be made payable to Mr. C. H. WELLS.

NOTICES.

J. G. H., BOURNEMOUTH.—These masses contain no trace of any biliary constituent, and are certainly not gall-stones. They consist almost entirely of fat, and are probably directly derived from the diet.

H. T. H., HEYTESBURY.—This sputum consists almost entirely of mucus, with very few cellular elements. There are no tubercle bacilli present, though the other organisms that frequent the pharynx are numerous.

J. S., EXTER.—Reaction, faintly acid; sp. gr. 1018; albumen, a small amount; blood and sugar absent. *Microscopic Examination.*—The centrifugalized deposit is somewhat scanty, and contains only leucocytes and large squamous epithelial cells. We have examined much of the deposit, but have been unable to detect any casts or blood discs. There are a very few crystals of the triple phosphate present. PATHOLOGIST.

THE COLLEGE OF PHYSICIANS.—The undermentioned Guy's man was admitted a Member of the Royal College of Physicians on July 28th: W. Dudley Hartley, M.D. (Dunelm), Cape Town.

Congenital Hypertrophy of Fingers.

R. T., æt. 5, attended Mr. Lane's Out-patients at Great Ormond Street, in January last, for hypertrophy of the second, third and fourth fingers of the left hand. The appearance of the hand is shown very well in the accompanying photograph.

The thumb and little finger of the left hand, the fingers of the right hand and the toes are all quite normal. The face is quite normal, and patient has no other congenital deformity. There is no tubercular or syphilitic history.

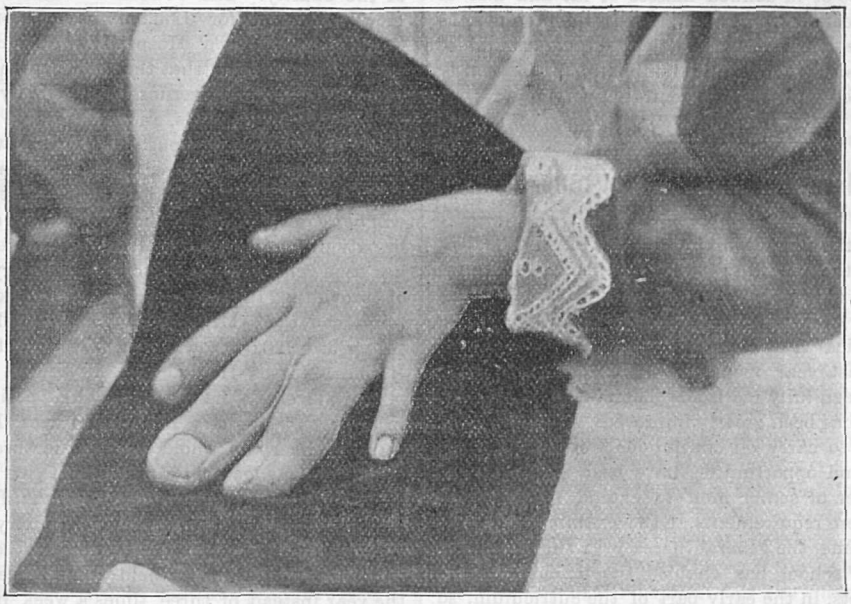
At birth the hand was quite normal as regards size, but the third and fourth digits—those are now the fingers chiefly affected—were webbed. When about two months old Didot's operation was performed and the fingers separated, but union subsequently recurred along the upper part of the first phalanges, where there is now a great deal of scar tissue. The whole of the left arm on measurement is found to be about a quarter to half inch larger than the right, but there is no increase in the length of the bones.

The increase in size of the fingers has been gradual, being first noticed a short time after the operation. At first patient was able to bend the fingers quite well, but lately they have become quite stiff. When nine months old Mr. Lane removed two cystic hygromata from the neck, and on two occasions since similar cysts have been removed from the neck and right axilla.

At the present time there is at the back of patient's neck a small tumour about two inches in diameter, soft, non-fluctuating, and having a slightly lobulated outline, which is probably a soft mass of fat. A similar mass is also present on the inner side of the right knee. It has the same characters as the tumour in the neck and is also probably a mass of fat. These have been noticed for about twelve months and show no tendency to increase in size.

The increase in size of the fingers after the operation suggests at first that the hypertrophy might be due to some lymphatic obstruction, but the increase in size of the index finger where there is no scar, and the fact that the left arm is slightly larger than the right are against this. The skiagraph also shows that the bones are enlarged as well as the soft parts. The mark over the metacarpo-phalangeal joint of the third finger is caused by some flaw on the plate and not by any change in the bone. It was not present in the first print. When the whole of the facts of the case are considered one concludes that this is probably a case of congenital hypertrophy of the fingers. This rather rare condition, though not often present at birth, is said by Treves to frequently develope in infancy and to be probably congenital in origin. It is generally unilateral, and part only of one limb is usually affected. When a single toe or finger is hypertrophied, the name of "giant finger or toe" is applied.

Irregular enlargement above the hypertrophy occasionally occurs as in the present case, where the left arm is slightly larger than the right.



CONGENITAL HYPERTROPHY OF FINGERS.

The presence of ill-defined masses of fat and also of congenital defects of the lymphatics, in the present case shown by the presence of cystic hygromata, and of angeiomata, both venous and lymphatic, is frequently found associated with this congenital hypertrophy.

P. T.

The Dean's Report for 1897-98.

IN presenting the report on the progress of the medical school during the preceding twelve months, the Dean is pleased to be able to state that the advantages to the school which were anticipated by the addition of the new physiological laboratories and other school buildings which were last year opened by H.R.H. the Prince of Wales, have been fully realized. The practical teaching of physiology has been greatly improved. Students have been enabled to carry on continuous work in the new laboratories, and opportunities have been afforded to a greater number of senior men to extend their studies beyond the mere requirements of the examining boards. At the same time, the general increase in the accommodation in the school has enabled the teachers of the various subjects, in the early part of the curriculum, so to rearrange the hours of their practical classes as to permit the students to occupy their time to the best possible advantage. Much discussion has recently taken place here and elsewhere upon the question of some modification of the course of study during the 1st and 2nd years of the hospital curriculum, and next winter session arrangements will be made in this school with the object of ensuring that each step of the curriculum shall be taken by every student in due order, and that there shall be no confusion such as has hitherto, to a certain extent, been inevitable between the earlier and later subjects of study.

During the period under review the number of students entering for the full curriculum was practically the same as the preceding twelve months; while the number entering for special courses was lessened, except in the case of the dental school and of the laboratory course for the diploma of public health, for both of which the entry was increased.

Owing to unforeseen circumstances the re-opening of Queen Victoria ward for the reception of women suffering from diseases peculiar to their sex, and of maternity cases, has been delayed. The structural work is practically now complete, and those who take the opportunity of inspecting the ward will see that great care has been bestowed upon the plans to ensure that every modern method of promoting asepsis should be included in the arrangements. In a few more weeks it is hoped that the beds will be occupied. Valuable as will be this addition to the beds available for clinical instruction, there is an immediate prospect of still greater addition to the hospital. It will be remembered that for nearly twenty years about 150 beds in Guy's Hospital have been unoccupied on account of the diminution of the income of the charity. The Council of the Prince of Wales' Hospital Fund for London have promised to the Governors of Guy's Hospital an annual subsidy of £6,600 on condition that these unoccupied beds shall be re-opened. The Governors have gladly accepted the gift on these conditions, and the work of re-opening the wards is being now pushed forward with all speed. Some delay must, however, take place, since it is necessary to find accommodation for the extra nurses who will be required when the hospital is once again occupied by patients to its full capacity. Fortunately the hospital has been relieved of much of the pecuniary responsibility of providing this additional accommodation by the munificence of Mr. Henry Lewis Raphael, who has subscribed £20,000 towards the erection of the Henriette Raphael Nurses' Home.

Dr. Stevenson has resigned his position as senior lecturer on chemistry, and Mr. Groves, F.R.S., will in future deliver the whole course of lectures on inorganic chemistry, the lectures being given twice a week instead of three times as hitherto. Mr. Wade, B.Sc., has been appointed lecturer on organic chemistry, and will also take charge of the course of practical demonstrations which will, in future, be held twice a week throughout the year instead of three times a week in the summer session only. The appointment of senior students to demonstrate to their junior colleagues has been found so useful in other departments that it has been determined to adopt this procedure in the department of chemistry also.

Dr. J. H. Bryant has been appointed fifth assistant physician, and Mr. A. D. Fripp, M.S., fifth assistant surgeon. Dr. J. Fawcett has succeeded Dr. Bryant as medical registrar and tutor, and Dr. A. P. Beddard has been elected to fill Dr. Fawcett's place as demonstrator of physiology.

Dr. J. W. Pare and Mr. K. W. Goadby have been appointed demonstrators of practical dentistry.

The results obtained by our students in the public examinations at the universities and at the Royal College of Physicians and Surgeons have been highly satisfactory, three of the gold medals offered by the University of London in the faculty of Medicine having been awarded to students of Guy's Hospital. At the intermediate examination for the degree of Bachelor of Medicine at the University of London, Mr. J. F. Northcott obtained the gold medal in physiology, while Mr. E. A. Miller obtained honours in physiology and materia medica, and Mr. J. Atkins in materia medica. At the final examination for the M.B. degree, Mr. C. H. Fagge obtained the gold medal and scholarship in medicine and honours in forensic medicine, whilst honours in one or more parts of the examination were obtained by Messrs. W. T. Milton, H. J. Starling, R. W. Mayston and G. E. Richmond. At the examination for the degree of Bachelor of Surgery, Mr. C. H. Fagge obtained the gold medal and a moiety of the scholarship.

In the various athletic contests between the students of the medical schools of London, the representatives

of Guy's Hospital have this year maintained their prominent position. The Rugby football team are especially to be congratulated on having obtained the challenge cup, which, since 1888, had remained in the hands of St. Thomas's Hospital. The Clubs' Union council report that their ground at Honor Oak Park is in excellent condition, and that the large number of students who resort to it for exercise, after their daily duties at the hospital are finished, is an indication of the great value to the school of the possession of this ground in such close proximity to the hospital.

Lawn Tennis: Hints to Beginners.

By J. W. WASHBOURN.

MEN frequently fail to play a good game of lawn tennis, not on account of any lack of dexterity, but because they have never studied the game. For this reason I have thought it worth while to jot down a few hints which I have gathered, partly from reading and partly from watching games between all classes of players. No amount of theory alone will make a man a good player. This can only be obtained by constant practice; and a beginner should remember to play quite a different game while practising to that which he plays in a match. In a match he should play his best strokes, while in a practice game he should attempt to make every stroke in the right way, quite irrespective of whether it is likely to "come off" or not. Men are often so keen upon winning an ordinary practice game that they never attempt their weakest strokes—the ones which they need most to practice. In a practice game a man who is weak on his back-hand ought never to run round the ball in order to make a more brilliant stroke with his fore-hand, for if he gets into the habit of doing this he will never learn the back-hand strokes.

Watching good players and studying the way they make their strokes and where they place the ball is of great importance; it is the easiest way to learn the theory of the game and how to play in good form.

With these preliminary remarks I will at once pass on to describe the different strokes.

The strokes.

There are two main methods by which a stroke can be made, either with the fore-hand or with the back-hand. In the *fore-hand* stroke the ball is taken with the front of the racquet, the front of the wrist facing forwards; in the *back-hand* stroke the ball is taken with the back of the racquet, the back of the wrist facing forwards. Balls that come on the right side of the player should be taken with the fore-hand, and those that come on the left side should be taken with the back-hand. This rule is especially of importance in singles, for "running round" a ball possesses two disadvantages. In the first place it is very fatiguing, and in the second place it gets the player out of position and thus leaves a large part of the court unprotected.

It is usual to slightly change the grasp of the racquet in making a back-hand stroke, but some players hold the racquet in such a manner that no change in the grasp is necessary.

In making a fore-hand stroke the left foot should be in front, the weight of the body resting at first on the right foot, but at the moment of striking the ball the weight should be transferred to the left foot. In making a back-hand stroke the right foot should be in front and the body should be turned so that the right shoulder faces the net; the weight of the body should rest at first on the left foot, but it should be transferred to the right foot at the moment of striking the ball.

A ball may be taken either before it touches the ground, or on the first bounce; so that there are four principal strokes—the fore-hand volley, the fore-hand drive, the back-hand volley, and the back-hand drive. In addition to these we shall have to consider the half-volley and lobbing, either of which may be made with the fore-hand or with the back-hand.

The fore-hand and the back-hand drive.

These may either be made with a round-arm or with an underhand stroke. In the round-arm stroke the racquet is held horizontally, and the ball is struck at about the top of the bounce. In the underhand stroke or "lifting drive" the racquet is held almost vertically downwards, and the ball is struck as it is falling. The round-arm stroke is generally preferable because it is more accurate, and because it does not necessitate getting so far back as with the underhand stroke. The underhand stroke can be used with advantage when the ground is dead and the ball does not rise much. With this stroke a forward spin is put upon the ball, which makes it difficult to take; but a similar spin can be obtained with the round-arm stroke by slightly tilting the face of the racquet.

The fore-hand and the back-hand volley.

The method of volleying depends upon the height at which the ball is coming. If it is not much above the top of the net it is best taken with a round-arm stroke, the racquet being held horizontally. If the ball is dropping it may either be taken with a round-arm stroke, or with an underhand stroke somewhat similar to the lifting drive, but this latter stroke is difficult and is hardly possible with the back-hand. If the ball is higher than the shoulder it should be taken with an overhand stroke, the racquet being held vertically upwards. If the ball is well above the head and is not very far from the net it should be *smashed* or *killed*, that is to say, it is struck with great force by an overhand stroke so as to bounce well out of reach of the opponents. The nearer the net and the higher the ball the easier is this stroke to make.

Any of the strokes above mentioned, with the exception of the under-hand volley, can be made either with the fore-hand or with the back-hand.

Lobbing.

Lobbing consists in tossing the ball over the opponent's head so as to fall near the back line. It is a very useful

stroke but requires a great deal of practice in order to do well. If the ball is not tossed sufficiently high it is liable to be killed by the opponent; while if it is tossed too high it may fall out of court.

Lobbing is especially of use in order to enable a player to get back into position when in a difficulty. It also possesses the advantage of driving the opponents to the back of the court.

The half-volley.

The half-volley consists in taking the ball just as it is rising from the ground. It can be made either with the fore-hand or the back-hand. It is a very difficult stroke to control and should only be made when there is not time to get forward to volley or back to drive.

The service.

In serving, the ball is thrown well above the head with the left hand, and is struck by an overhand stroke, the racquet being held vertically upwards. In a single the server should stand not far from the middle line, but in a double it is well to vary the position, and to stand sometimes near the middle line and sometimes almost at the corner of the court. The first service should be hard and of a good length, that is as near the service line as possible, the object being to drive the server-out behind the back line. The second service should be of good length, and as hard as is consistent with safety. A good deal may be done by carefully placing the service. If the server-out is weak on his back-hand the ball should be served to his left side, and if he (when in the right court) stands near the middle line in order to avoid back-handers, the ball should be served near the side service line. It is a good plan to constantly vary the service, both in pace and in position, so as to catch the server-out unawares. It is unwise, except against a very weak player, to serve the ball short, that is to say, close to the net, for it gives the server-out the opportunity of making a winning short-cross court return.

We shall have to consider the single and the double game separately, for they ought to be played in quite a different manner. The beginner often makes the mistake of playing a single in exactly the same way as a double, but he will soon find out that the strokes which pay in the one game are fatal in the other. There is, however, one point common to both games, which is that the most difficult balls to take are those which fall on a level with the player's feet; for it is difficult for him to run back to drive, and if he volleys the ball he strikes it as it is falling, and will probably put it out of court, or, at any rate, make an easy return. It is thus a good rule to attempt to return the ball so that it falls as nearly on a level with the opponent's feet as possible.

The single game.

It has already been stated that the *server* should stand near the middle line when serving. Immediately after the service he should take up one of two positions. If the service has been sufficiently hard to drive the opponent well out of court, he should run up to the service line or even nearer to the net and volley the return. If the service has been of moderate rate, he should step back a few feet behind the back line and await the return.

The *server-out* may return the service in various ways. If the server has remained at the back of the court, and the service is of good length, the ball should be returned so as to pitch close to the back line, and as near one of the side lines as possible. If, with the server in the same position, the service falls near the net, an attempt may be made to win the stroke by returning the ball across the court so that it pitches near the net, and close to one of the side lines. If the server "runs up," the ball either should be returned so as to fall close to one of the side lines, and on a level with the server's feet, or it should be lobbed over his head, so as to fall near the back line. The object of making the return near the side lines is to drive the opponent to one side of the court, so that the rest of the court is left unprotected. It is not advisable to attempt to drive the return to the back of the court when the server is up at the net, because the height of the ball would be such as to render it easy for him to volley.

The position to be taken by the server-out after the return must depend upon circumstances. If he has made a weak return he should take up a position just behind and near the middle of the back line; while if he has made either a hard return of good length, or a good lob, he should run up to the net.

During the *rally* the player should try to drive his opponent behind the back line and to get near the net himself, for this gives him the opportunity of placing the ball across the court out of his opponent's reach. If the opponent is near the back of the court he may be driven behind the back line by hard returns of good length; while, if he is near the net, the same object may be obtained by lobbing. A beginner often makes the mistake either of running up to the net when he ought to be back, or of remaining at the back of the court when he ought to be up. The best plan is to keep back until he has made a hard return of good length or a good lob, and then to run up. In determining when to run up, the strength of the opponent must be taken into account. A man playing against a weak opponent can often run up when it would be fatal to do so if playing against a strong opponent.

It is most important to find out the opponent's weak points. If he is equally good upon his fore-hand and his back-hand, the returns should be made first to one side and then to the other so as to keep him running about the court; but if he is weak upon his fore-hand or upon his back-hand, the majority of the returns should be made to the weak side.

The double game.

In doubles there are four players, whom we will designate the server, the server's partner, the server-out, and the server-out's partner.

The *server's partner* should stand close to the net if the service is a strong one, and near the service line if it is weak. The reverse should hold for the *server-out's partner*, that is to say, he should stand near the net

if the service is weak, and near the service line, or even on the back line, if it is strong.

The *server* should run up to the service line or beyond it immediately after the service, so as to be ready to volley the return. This should be an invariable rule in a practice game, but in a match he may find that he is losing points by missing the returns, and then he will do well to take up a position a little behind the back line, and there to await the return. It is even desirable now and then to vary the position; for the server-out may thus be put off his guard and may make a return which would be difficult to take, were the server on the service line, but is easy when he remains at the back of the court.

The *server-out* may return the ball in several ways. If the server runs up, there are four ways in which the return may be made. (1) The ball may be returned across the court so as to pitch near the server's side line and as close to the net as possible. This is the best return, not only because it is difficult to take, but also because it separates the server and his partner, and thus leaves the middle of the court unprotected. (2) The ball may be returned down the middle-line so as to pitch on a level with the server's feet, that is to say, close to the service line. These two strokes may be varied according to whether the server runs up near the middle or near the side of the court. (3) The ball may be lobbed to the back of the court. (4) The ball may be driven along the server's partner's side line so as to pitch near the back line. This stroke should only be attempted when the server's partner is standing near the middle line, and is not guarding his side line properly.

If the server remains at the back of the court, it is best to keep him there by returning the ball to the back line, and as close to his side line as is possible. The server-out should run up to the service line or beyond it immediately after the return, unless the latter has been very weak.

If the ball is lobbed over one of the player's head, both players should run back; it is a disadvantage for one player to be up and the other back, because, with the players thus situated, a good deal of the court between them is unprotected. Again, after making a return liable to be smashed, both players should run back; for unless they are well at the back of the court, there is no possibility of returning the smash. After being forced to the back of the court, the players should stay there until one of them has made a hard drive or a good lob which drives the opponents back.

During the rally the players should strive to obtain two objects: the one is to separate their opponents so as to leave the centre of the court unprotected, and the other is to drive the opponents to the back of the court, so as to leave the front of the court unprotected. With the first object in view, the returns should be made across the court, and in order to drive the opponents to the back of the court, the returns should now and then be lobbed.

The majority of the returns should be made to the weaker of the opponents. It is well to keep on returning the ball to the man who is in play, in the hopes that he will either break down or get driven sufficiently out of position to be passed.

Immediately after making a good lob, both players should run up to the net so as to be in a position to smash the return should it be weak.

In conclusion a few hints may be given as to the best way of dealing with the different strokes during the rally.

A ball that comes across the court is best returned in the direction from which it has come, but if possible, in a line more nearly parallel to the net; it may also be returned along the side line near which it was pitched, but this return is more difficult to make.

A ball that is lobbed over the player's head should be lobbed back, unless the opponents are at the back of the court, when it may be driven to the back line.

A ball that is badly lobbed, so as to fall short, should be smashed.

Sport.

Cricket.

GUY'S v. HORNSEY.

Played at Honor Oak Park on Saturday, July 2nd, and resulted in an easy victory for Guy's. Clarke and Trubshaw were in exceptional bowling form, the former securing six wickets for 16, while the latter took four for 23. Score:—

GUY'S.

A. E. Clarke, c F. J. Nicholls, b H. Nicholls	23
F. C. Wetherell, b H. A. Nicholls	25
K. B. Alexander, b G. W. Oscroft	22
K. V. Trubshaw, b F. J. Nicholls	58
J. M. Brydone, b P. W. Oscroft	5
M. C. Wetherell, b P. W. Oscroft	7
L. Humphry, b S. L. King	31
G. T. Willan, c P. W. Oscroft b S. L. King	10
A. E. Cawston, b P. W. Oscroft	7
C. M. Cowper, not out	2
H. R. Grillett, c L. Orton, b P. W. Oscroft	19
Extras	23
Total	232

HORNSEY.

D. J. Crump, b Clarke	10
F. J. Nicholls, b Clarke	4
L. Orton, b Trubshaw	1
G. Hart, st Humphry, b Trubshaw	7
H. A. Nicholls, b Clarke	3
P. W. Oscroft, b Clarke	7
S. L. King, b Clarke	0
J. M. Gibblett, st Humphry, b Trubshaw	1
E. W. Nicholls, b Trubshaw	1
E. G. Robbins, c Humphry, b Clarke	3
J. Whitehead, not out	2
Extras	4
Total	43

GUY'S v. BRENTWOOD.

Played at Brentwood on Saturday, July 16th, being our last match of the season. Brentwood batted first, and knocked up 201 runs. Guy's began well, and scored 50 for the first two wickets, but with the total 76, five wickets fell in quick succession. M. C. Wetherell then came to our rescue, and with Wiltshire nearly saved the game by making a draw of it, but the latter was unfortunately bowled by Heatley in the last over. Score:—

BRENTWOOD.

C. H. Escott, c Humphry, b Wiltshire	8
D. Crossmann, b Trubshaw	33
A. E. Heatley, c Alexander, b Trubshaw	15
H. C. Mieville, lbw Clarke	4
C. E. Lewis, b F. C. Wetherell	21
Cutts, c & b Clarke	22
H. C. Logan, c & b F. C. Wetherell	38
G. L. Crossman, c Humphry, b F. C. Wetherell	29
J. Hollebourne, not out	8
R. A. Ramsey, c & b Clarke	3
J. A. Chalk, c & b Clarke	5
Extras	15
Total	201

GUY'S.

A. E. Clarke, c Logan, b G. Crossman	7
K. B. Alexander, c & b Crossman	26
K. V. Trubshaw, b G. Crossman	19
F. C. Wetherell, b G. Crossman	20
L. Humphry, b D. Crossman	1
J. M. Brydone, b D. Crossman	0
M. C. Wetherell, not out	36
G. T. Willan, b D. Crossman	0
H. Durbridge, b D. Crossman	0
A. E. Cawston, b G. Crossman	2
H. P. Wiltshire, b Heatley	0
Extras	3
Total	114

United Hospitals Bicycle Meeting.

By kind permission of the Sheen House Club, the United Hospitals were enabled to hold their annual race meetings for the Mellin Shield, on the beautifully situated track of that club at Sheen House, Mortlake, on Saturday last. Unluckily the weather was dull and threatening, but this did not deter a fair number of members of Sheen House, and visitors from attending. As the *Sportsman* remarked in their report of the meeting "There are no more enthusiastic sportsmen than medical students, their meetings are always enjoyable, and they always 'play the game' from start to finish." That this was the case on Saturday last, there is not the slightest doubt. The presence of MacBourke and Stuart of St. George's and St. Mary's hospitals, added greatly to the interest of the meeting, as amongst amateurs, it would be very hard to find better riders. Taken altogether, the meeting and racing were a great success. Before the 12 mile race, St. Mary's were leading on the points, but thanks to the good riding of Bates, May and Gabriel, and good pacing, Guy's were able to retain possession of the Shield for another year by getting their men home in the second, third and fourth places. The twelve miles race is the only one that calls for comment, in that Stuart of Mary's broke the track record for 10 miles, doing the distance in 24min. 30sec., Bates. Gabriel and May riding all in a bunch, were about 20 yards behind at the 10 miles, and must all have been only a very few seconds behind this time, and easily inside the old record; at the sprint for the finish, May was pressing Stuart very hard, Stuart eventually winning by barely three yards in the good time of 28min. 38⅘sec. At the conclusion of the racing the order was:—

1.	Guy's ...	25 points.
2.	St. Mary's ...	33 "
3.	London ...	41 "
4.	St. Thomas's ...	43 "
5.	St. George's ...	61 "

Middlesex not represented, although entered.

Mr. P. B. Spurgin acted as starter, and Mr. A. S. Bruzard acted as judge.

The medals and shield were afterwards presented to the winners by Miss Washbourn. At the conclusion of the prize giving, Miss Washbourn was presented with a handsome bouquet of flowers by the U.H.C.C. Dr. Washbourn in one of his characteristic speeches thanking the Sheen House Club for their kindness in allowing the use of their track, and also thanking the U.H.C.C. on behalf of Miss Washbourn for their very handsome present, and also congratulating Guy's on their victory. Appended are the results of the races:—

ONE MILE SCRATCH RACE.—Heat 1: M'W. Bourke, St. George's, 1; E. W. Grogono, London, 2. Won by two lengths. Time, 3min. 22⅖sec. Heat 2: J. E. L. Bates, Guy's, 1; E. M. de Wilton, St. Mary's, 2. Won by three-quarters of a length. Time 3min. ⅖sec. Heat 3: F. A. K. Stuart, St. Mary's, 1; J. H. Greenwood, Guy's, 2. Won by a yard and a half. Time, 2min. 42⅖sec. Final Heat: M'W. Bourke, St. George's, 1; F. A. K. Sutart, St. Mary's, 2. Won by two lengths. Time, 4min. 1⅘sec.

THREE MILES SCRATCH RACE.—Heat 1: M'W. Bourke, St. George's, 1; C. J. Battle, St. Thomas's, 2. Won by three lengths. Time, 9min. 55⅖sec. Heat 2: F. A. K. Stuart, St. Mary's, 1; J. E. L. Bates, Guy's, 2. Won by two lengths. Time, 8min. 12⅕sec. Heat 3: E. M. de Wilton, St. Mary's, 1; J. R. Garrod, St. Thomas's, 2. Won by a length and a half. Time, 9min. 25sec. Final Heat: M'W. Bourke rode over.

TWELVE MILES SCRATCH RACE (paced).—F. A. K. Stuart, St. Mary's, 1; R. C. G. May, Guy's, 2; A. M. Gabriel, Guy's, 3; J. E. L. Bates, Guy's, 4. Won by three yards. Time, 28min. 38⅘sec.

Guy's Hospital Rifle Association.

INTER-HOSPITAL CHALLENGE CUP COMPETITION AT BISLEY.

Thursday, July 14th, 1898, will always be a red-letter day in the annals of the Guy's Rifle Club. For just thirteen years have "our friends, the enemy" from our sister hospital, held the Inter-Hospital Challenge Trophy; and for thirteen years have we, together with the other shooting schools tried, in vain, to wrest it from them. Perhaps I *should* say "*twelve* years in vain;" for, on this, the thirteenth occasion, the Cup finds a resting place alongside its late companion—the Rugger Cup—in OUR smoking room.

Little was it thought when our secretary, early in the present shooting season, playfully suggested that he should journey over to St. Thomas's to measure the Cup for a new glass case, that such a proceeding would ever be necessary. It *has* come to pass, however, for all the existing cases in the smoking room are full, and a new one will be needed for the recently-acquired pot, which we sincerely hope has come to stay.

Thursday morning certainly was, to all intents and purposes, an ideal one, and gave promise of good scores if there was no change. Some of the team went down early in the morning by a special train to Bisley Camp, in order to lunch with their old schools' corps, who were to shoot for the Ashburton earlier in the afternoon. By 3.30 all our men were in camp, waiting for the fray at 5 p.m. Captain Rawnsley, of the Royal Army Medical Corps, was serving on the staff of the N.R.A., and gave us a hearty welcome—and still more hearty wishes for victory—asking that he might be allowed to christen the Cup, should we win it. As it was not in the power of thirsty volunteers to refuse, this small request was granted, should fortune favour us.

We went down to the targets punctually at 5 p.m., and firing began immediately. Among the first shots fired, it may be stated that Moss made a magpie for his sighter, whilst a rather remarkable thing occurred with his first-to-count. A miss was signalled, but as he felt certain it was on the target, and his opinion was confirmed by the scorer, the shot was challenged; and, on the target being more carefully examined by the officer in the butt, it was found that a bulls-eye had been made, thus justifying the challenge.

Right from the start, it was obvious to onlookers that Guy's shot to win. Pearson, our worthy skipper, made eight bulls in eight consecutive shots, and the other men were doing proportionately well. It would be "invidious to particularise" as the reporters say, but certainly Glover's score of 68 deserves mention. It was a most praiseworthy performance, and is not the first time he has rendered yeoman service. Pearson and Travers come next with 67 each, whilst Hodgson had 66, Stanley-Turner 61 (including an outer and two mags), and Moss 60. From this it will be seen that had one point more been added to the total of 389, the average score would have reached 65—to be precise, it is 64.83. Thus it will be seen that the score of 60, which in previous years, has been more than once the highest, is now the lowest.

Immediately the result was made known, Captain Rawnsley hurried us to Fry's tent to be photographed, so, with the editor's permission, readers of the GAZETTE will shortly be in possession of reproductions.

And so we hold the Cup, and, given favourable circumstances, our men are good enough to retain it.

Our most urgent want is a range where regular weekly practice can be carried on. Such a place, in these days of volunteer tickets, need not necessarily be near London. One thing seems fairly certain, and that is, that our men will unanimously object to shoot at Ilford another year on account of the senseless regulations whereby a match cannot possibly be finished in an afternoon. To hire a range elsewhere will cost not less than £1 10s. per half-day, so more money will be urgently needed. Surely, now the men have *themselves* worked the Club up to such a state of excellence, it would be a pity for it to decline for want of support. To put it concisely, the support necessary to the club is—

1. More prizes to be competed for at the annual prize meeting, especially for men in their first and second years.
2. A more *active* interest in the club on the part of *members of the staff*.
3. Regular and adequate range accommodation.
4. An award, such as a half-blue or honour cap, and
5. Keenness on the part of the men.

H. S. T.

Subjoined are the individual scores:—

GUY'S.

Pvt. J. A. Glover (London Scottish)	68
Pvt. A. Pearson (Captain) (Artist's R.V.)	67
Pvt. O. Travers (Devil's Own, 14th Middlesex)	67
Lce-Copl. Hodgson (Artist's R.V.)	66
Pvt. Stanley-Turner (London Scottish)	61
Pvt. Moss (Artist's R.V.)	60
Total ...	389

ST. THOMAS'S.

Pvt. N. Carpmael (2nd East Surrey)	69
Pvt. Marshall (20th Middlesex)	62
Pvt. Weekes (20th Middlesex)	62
Pvt. Unsworth (20th Middlesex)	61
Pvt. Upcott (20th Middlesex)	57
Cpl. Beale (20th Middlesex)	56
	367

ST. BART'S.

Cpt. Morris (1st V. B. Royal Lancashire)	68
Pvt. H. C. Brown (V. M. S. C.)	65
Pvt. C. R. Brown (V. M. S. C.)	63
Pvt. Read (H. A. C.)	58
Pvt. Gandy (20th Middlesex)	53
Pvt. Frost (20th Middlesex)	51
	358

ST. MARY.

Pvt. Jones (V. M. S. C.)	57
Pvt. Pooley (V. M. S. C.)	55
Pvt. Taylor (V. M. S. C.)	52
Cpl. de Morgan (V. M. S. C.)	50
Lnce.-Cpl. Trumper (V. M. S. C.)	49
Lt. Cunningham (London Irish)	49
	312

Pt. N. Carpmael, St. Thomas's, wins the prize given by the U.H.R.A. for the highest individual score, 69. This is the first year the Cup has been won outside St. Thomas's.

PRIZE MEETING, JULY 25th, 1898.

COMPETITION I.

Open to all members of hospitals joining the U.H.R.A. Seven shots at 200, 500 and 600 yards.

1st. N. Carpmael, Tabloid Case	99
2nd. C. De Z. Marshall, Hypodermic Syringe	90
3rd. Pooley, Hypodermic Syringe	85

These prizes were presented by Messrs. Burroughs, Wellcome & Co.

COMPETITION II.—HANDICAP.

	Pts.	Hcap.	Total.
1st. De Morgan, prize value 38/-	88	7 =	95
2nd. Travers, Hypodermic Syringe (Messrs. Down Bros.)	87	8 =	95
3rd. H. C. Jones, Splint (Messrs. Allen & Hanbury).	82	13 =	95
4th. Vaughan, value 7/6	83	10 =	93
Next Best Scores.			
Beale	81	10 =	91
Calting	79	12 =	91
Holford	84	6 =	90
Brown	84	5 =	89
Upcott	82	6 =	88
Read	81	4 =	85
Spurgin	62	17 =	79
Trumper	58	19 =	77

Carpmael's score of 99 is the United Hospitals Rifle Association record.

Appointments.

CIVIL.

CRAIG, MAURICE, M.A., M.D. Camb., M.R.C.P. Lond., M.R.C.S., has been appointed Senior Assistant Physician to the Royal Bethlem Hospital for the Insane, Southwark, S.E.

FULLER, W. A., M.R.C.S., L.R.C.P. Lond., has been appointed House-Surgeon to the Huntingdon County Hospital, Huntingdon.

HAYWARD, J. W., M.R.C.S., has been appointed Medical Officer of Health by the Whitstable District Urban Council.

HYSLOP, T. R., M.D., M.R.C.P., L.R.C.S. Edin., has been appointed Resident Medical Superintendent for the Royal Bethlem Hospital for the Insane, Southwark, S.E.

JORDAN, H. MARTYN, F.R.C.S., Eng., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Referee under the Workmen's Compensation Act, 1897, for the Clerkenwell County Court District No. 41.

NICHOLSON, C. R., L.R.C.P. Lond., M.R.C.S., has been appointed House-Surgeon for the Hastings, St. Leonards and East Sussex Hospital, *vice* H. C. T. Langdon, resigned.

PARRY, LEONARD A., M.D., B.S. Lond. F.R.C.S., has been re-appointed Honorary Physician to the St. Pancras and Northern Dispensary, Euston Road, London.

SMITH, G. PENDER, L.S.A., has been appointed Medical Officer of Health by the Wivenhoe Urban District Council.

WALKER, S., of Middlesborough, M.R.C.S., has been appointed a Medical Referee under the Workmen's Compensation Act, 1897, for the County Court Circuit No. 15.

NAVAL AND MILITARY.

SURGEON GEORGE MCGREGOR, R.N., has been appointed to H.M.S. *Mosquito*.

LIEUTENANT-COLONEL J. T. CAREY, with a detachment of the Royal Army Medical Corps, has left Aldershot for service in the Soudan.

BRIGADE-SURGEON LIEUTENANT-COLONEL G. C. HALL, I.M.S., is granted the temporary rank of Surgeon-General whilst officiating as Inspector-General of Civil Hospitals, North-Western Provinces and Oudh.

SURGEON-CAPTAIN S. H. BURNETT, I.M.S., has been appointed Secretary to the Surgeon-General with the Government of Bombay.

Marriage.

LANSDOWN—FULLER.—On July 6th, at the Parish Church, Lydford, Francis Poole Lansdown, M.R.C.S., of Clifton, Bristol, to Sarah Sophia, daughter of the late William Fuller, Moor Lodge, Lydford, Devon.

MUMFORD—JAY.—On July 6th, at St. Mary Abbot's, Kensington, Wilfred George Mumford, M.R.C.S., L.R.C.P., of Bartlett's Passage, Holborn, to Louisa Sylvia Dora, daughter of the late Stephen Octavius Jay, of Addison Crescent, Kensington.

WOODHAMS—SHARLAND.—On the 27th inst., at Holy Trinity Church, Gravesend, by the Rev. F. C. Naish, Vicar, assisted by the Rev. J. H. Haslam, Rector of Gravesend, Sidney Woodhams, M.R.C.S., L.R.C.P., of Park Place, Gravesend, to Julia, youngest daughter of George Edward Sharland, of the Laurels, Gravesend.

Deaths.

BOSWORTH.—On July 12th, at Grove End, Sutton, Surrey, Emily Sophia, wife of John R. Bosworth, M.R.C.S., etc.

FARR.—On July 16th, at Strathallan, Owls Road, Boscombe, Septimus Briggs Farr, M.R.C.S., L.R.C.P. Edin., L.S.A. Lond., aged 65 years.

ED.—H. L. E.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, Guy's Hospital Gazette, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the Gazette *bound should leave them with the Librarian.*

The annual Subscription to the Gazette *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. Wells, Secretary's Office, Guy's Hospital.

The charge for binding in blue, with the Arms of the Hospital in gold will be One Shilling and Sixpence.

Calendar of Coming Events.

August.

Wed. 17.—Messrs. Golding-Bird and Dunn's take-in; Drs., G. N. Meachen and G. Minter Brown; Cl., J. M. Fortescue-Brickdale.

Wed. 24.—Messrs. Howse and Jacobson's take-in; Drs., H. B. Dismorr and T. W. S. Brown; Cl., W. J. Lindsay.

Wed. 31.—Messrs. Davies-Colley and Symonds' take-in; Drs., J. C. Brockwell and E. W. Goble; Cl., H. W. Bruce.

Guy's Hospital Gazette,

AUGUST 20, 1898.

Ascites.

CLINICAL LECTURE BY DR. SHAW.

6th July, 1898.

Gentlemen,—On looking round the Clinical wards, I find there are three patients suffering from Ascites; it has occurred to me that I might make use of them as examples of the three great groups under which one is supposed to classify cases of ascites, and to employ them, not so much as subjects, but as illustrations of a clinical lecture on this subject.

And, first of all, I want you to get firmly fixed in your mind these three great groups of causes of ascites:—

1. Portal obstruction.
2. Diseases of peritoneum.
3. General dropsy.

But before we discuss the differential diagnosis and the various pathological conditions, we will speak of the diagnosis of the evidence of ascites; for it is not much use discussing the cause of a condition unless you can previously ascertain its existence.

As a matter of fact there is not usually any difficulty in diagnosing ascites, whether there is an enormous amount of it or almost nothing at all. Occasionally there is some difficulty in recognising the presence of small amounts; indeed, when the presence of the slightest degree of ascites would give very great assistance in the diagnosis of a case, it is occasionally exceedingly difficult to assure oneself of its existence.

Let us begin by the usual division into symptoms and physical signs; the symptoms being the things that patients will tell you of, and the physical signs what you find out for yourself.

Firstly, the symptoms:—The patient notices a gradual increase in the size of the abdomen, which may take weeks or months; he may complain of shortness of breath caused by the pressure of the fluid on the diaphragm interfering with the action of the lungs and of the heart, though, of course, these same symptoms may be due to any number of things; their importance lies in their connection with the increasing fulness of the abdomen.

To go on to the physical signs, I suppose we shall divide them under the time-honoured—inspection, palpation and percussion. As to inspection, the abdomen may be most strikingly enlarged, it is always described by ward clerks as "bulged in the flanks." I never read a report of a case of ascites which does not "bulge in the flanks," just as the abdomen of a typhoid patient is always "tumid." I do not know what this bulging means. I think it must be that instead of a spherical, the transverse section of the abdomen assumes a sort of oval contour with its greater diameter from side to side. I do not think you meet with this condition unless there has been a very considerable amount of ascites which has been lessened by paracentesis or by absorption.

One of the most striking signs on inspection is the undue "obviousness" of the veins on the surface: I employ this word because I think

that sometimes it is not that the veins are fuller, but that the skin is stretched tightly over them and is thus thinner, allowing the normal veins to be more plainly seen. Generally, however, the veins *are* actually unduly full.

Another point is the appearance of umbilicus, which may be protuberant or flattened. This, I suppose, depends entirely on the resistance of the abdominal wall at this point. In the old days, you know, the abdomens sometimes went on swelling till they burst; which, the old reports say, was accompanied by a "loud report."

Then as to percussion. The best way to get an idea of the conditions in ascites is to remember that in health the intestines are absolutely in contact with the abdominal wall, in ascites their place is taken by fluid which is dull on percussion. We are usually taught that when there is only a little fluid present it gravitates down to the pelvis, but I have frequently noticed that when the surgeon makes his incision through the peritoneum in performing the operation of laparatomy fluid pours out at once although the case presented no physical signs of ascites.

In some cases of cirrhosis of the liver you wish to make certain of the presence of a small amount of ascites, and it has been suggested that you should palpate the abdomen with the patient in the "knee-elbow" position, when, if any fluid be present, it will give an area of dulness round the umbilicus. I have very little faith in this test myself for, as you know, the intestines contain fluid and gas; naturally, when the patient lies on his back the fluids lie below and the gas above, and so you get a resonant note; on reversing the position of the patient, the fluids fall to the lower position, *i.e.*, nearer the anterior abdominal wall, and this gives you a dull note.

Palpation is an exceedingly useful aid in detecting ascites. You place one hand on one side of the abdomen and flip gently on the other side; if fluid is present a distinct thrill is transmitted from the one hand to the other. Why this sign is present in some cases and not in others, has always puzzled me; from watching cases I have not been able to satisfy myself as to the reason; perhaps it depends on the tension of the fluid. You know we are always warned to diminish the vibrations of a loose abdominal wall by interposing a bed-letter or similar object between the two hands so as to prevent a wave being sent along the wall which might be mistaken for a thrill. To my mind it seems better, when the thrill is of so uncertain a nature that you cannot decide whether it was due to transmission of vibrations through the wall or through the abdomen, to neglect this sign altogether in forming your diagnosis.

There is another much more valuable sign, known by the name of "dipping," which not only tells you of the presence of fluid, but also of some abnormal viscus or tumour; placing the palm of the hand flat upon the surface, by a sudden flexure of the fingers you dip into the abdomen, and if there is fluid in front of a tumour you displace the fluid and come down sharply on the tumour or viscus. The sensation is quite characteristic, and I have hardly ever found a ward-clerk who could not convince himself that he was successful at the first attempt. Occasionally one has a vague idea that you are feeling intestine between the abdominal wall and the hard surface of the viscus, and that it is bowel and not fluid that is displaced by "dipping," but this is certainly a very rare occurrence.

Other physical signs you may find which are the result of the existence of fluid in the abdomen; thus you often get marked dulness over the bases of the lungs, due of course to the air being squeezed out of them by the pressure upwards of the diaphragm; œdema of the legs is another common sign. In a great many cases, no doubt, it is due to the pressure of the fluid on the inferior vena cava, but one must not forget that in many cases the œdema and the ascites are both due to one primary cause.

You would naturally expect the pressure of the fluid on the abdominal viscera to interfere with the action of the stomach and bowels, and so it does so far as the stomach is concerned. In cases where there is much ascites, the patients may be very sick. I am inclined to attribute this to mere physical interference with the functions of the stomach by the pressure of the fluid, and it certainly is a fact that directly after tapping, such patients cease to vomit.

Next as to the effects upon the kidney. The kidney itself, is too firm to be much affected by pressure, but if there is much ascites the renal vein is more or less obstructed and you get a congested kidney; this condition of engorgement of the kidney is analogous to that existing in heart disease. The albuminous and scanty urine to which such a condition gives rise are too common to be of much importance in the diagnosis of ascites.

Having enumerated the physical signs of ascites, we must consider the conditions from which it must be differentiated. Various conditions simulate it more or less, as ovarian

tumours, pregnancy, distended bladder, cysts of mesentery. In all these, however, you will find that the dulness is in front and the resonance behind. In the man in Clinical we obtained dulness in front and resonance behind, and yet he was not pregnant, nor had he an ovarian tumour, nor a distended bladder, nor do we think he had cysts of the mesentery; in his case it is thought that the results obtained by percussion were due to disease of the peritoneum, as I will explain later on.

In some cases of obesity the diagnosis is more difficult, the patient is very much impressed by the rapid way in which the abdomen is increasing in size. You percuss the abdomen and perhaps you find diminished resonance all over. Occasionally one has very considerable doubts in such cases; you tap the abdomen and nothing comes out because the tubes are not long enough to go through the layer of fat. The diagnosis of flatulence is much less difficult for the abdomen is exceedingly resonant all over. Sometimes you may find some difficulty with "Phantom Tumours," which used to be much more common than they are now.

Dr. Goodhart tells you they have gone out of fashion. I can remember seeing quite half a dozen cases while I was a ward-clerk, but very few since. A patient was sent up to my out-patients the other day by an old Guy's man for the abdomen to be examined for a tumour; he had measured the abdomen one day, a few moments afterwards had measured it again and found it several inches more in circumference. The phantom would not, however, appear to us at out-patients.

When we have made up our minds that the patient has got ascites, the next thing to find out is to which of the three great groups it belongs.

There is a method of diagnosis adopted by some out-patient clerks, and occasionally with success. They start by saying, "Do you drink much tea?" and so till they gently lead the conversation up to gin; if the patient acknowledges to drinking gin, they at once conclude that she has got cirrhosis, and so ascites. But when the case is at all difficult, I am sure the wiser way before getting the patient's history, is to make up your mind, by the physical signs, to which group the case belongs. To begin with—the special physical signs indicative of portal obstruction are:—

1. The presence of distended veins on the surface of the abdomen. This sign shows the existence of pressure, but it may be due to pressure either on the portal vein or on the inferior vena cava, the former a cause and the latter a result of ascites. If there is slight ascites in a case which you think likely to be due to a portal obstruction, it has been suggested that the examination of blood from the distended veins, which are taking on the functions of the obstructed portal circulation, might be of value in the diagnosis; but we must leave that to the physiologists.

2. Since the peritoneal effusion is free and there are no adhesions of the intestines, the dulness will vary with the position of the patient. One point is worth considering: the fluid is not absolutely free in the abdomen; you must remember that there is a good deal of pressure there; therefore when you turn your patient on the side and percuss, you must allow a little time for the fluid to shift over.

3. Again, if there is sufficient portal obstruction to have produced any amount of ascites, it is very likely to have produced other signs; the portal vein fails to drain the blood from the superior mesenteric, and ascites results; but it also fails to drain it from the splenic and gastric veins, and you get a large spleen and a history of hæmatemesis; these two points would render the diagnosis almost certain. As to the presence of hæmorrhoids, they are so common that you would take no more notice of them than of the history or otherwise of alcohol.

4. Since portal obstruction is invariably due to pressure on the main trunk of the vein, or on the radicals, *i.e.*, in the liver, we are exceedingly likely to get other signs of disease of the liver, as enlarged liver and jaundice.

Next, we will take the special indications of diseases of the peritoneum:—

1. If with ascites you obtain uniform dulness all over the abdomen the chances are exceedingly great that there is disease of the peritoneum; if the case is one of cirrhosis of the liver, for instance, the mesentery is almost sure to be long enough to allow the intestines to float up. Nearly all diseases of the peritoneum are liable to produce thickening and shortening of it. As the ascites increases, the distance from the posterior to the anterior wall increases, and as the mesentery shortens, the intestines are kept from coming in contact with the anterior wall, and so you may get uniform dulness all over. This is an almost certain indication of disease of the peritoneum.

2. There may be adhesions loculating the fluid and you may find dulness on one side of the umbilicus and resonance on the other, which does not shift on altering the patient's position. In such cases you would certainly

anticipate disease of the peritoneum from the fixation of the fluid.

3. If, on careful palpation, you can feel lumps, a solid mass here and another there, you can at once put out of consideration portal obstruction and general dropsy. It is not necessary for growth or tubercle to be present in such a case. As long as the intestines are normal they slip under the hand and cannot be felt, but directly they become matted together they feel solid. They may be lumps of growth or tubercle that you feel, but do not forget that it may be only due to adhesions from chronic peritonitis, no real disease of the intestines, but merely the effect of a past inflammation.

4. A last point perhaps would be the presence of blood-stained fluid on tapping.

Lastly, as to the indications that the ascites is a part of a general dropsy.

Of course you examine the legs, the pleural cavities, etc., but it is often by negative signs rather that you arrive at this diagnosis. There are no signs of portal obstruction and no lumps to be felt.

What makes it more difficult is that the patient may get his ascites from heart or kidney disease before he has got a general dropsy, or only the lower half of him may be dropsical, the face and arms may be free, and of course you may have œdema of legs in any case of ascites from secondary pressure on the inferior cava. You must find a cause of the ascites, as a well-marked heart disease or Bright.

Now we have made up our minds into which group to place the case, let us consider the particular conditions included under each heading.

1. Cases of Portal Obstruction.—One of the patients in Clinical was a woman æt. 31, with a striking history of alcohol. She had been in the Hospital for Diseases of Women in Soho Square, which naturally suggests a connection with pelvic trouble. I remember when I was at the Hospital for Diseases of the Chest, how pleased I always was to get hold of a case of abdominal disease, so that you must not assume that because a patient has been in a hospital for diseases of women that her trouble is necessarily pelvic. For two years she has been regularly sick every morning, but she gives no history of hæmatemesis. She admits to five pints of beer a day, and says she has always been used to drinking since a baby; better signs, perhaps, of her hard drinking are her alcoholic facial expression, her large liver and ascites; this will serve as a typical case to illustrate portal obstruction.

What might be the cause of this obstruction in the portal vein? I will not attempt to elaborate every cause, but will suggest a distinction into obstruction of the radicals and that of the main trunk.

In the radicals you may have :—

Cirrhosis.
Perihepatitis.
Diffuse Carcinoma.

In the main trunk:—

Adhesive pylephlebitis.
Portal thrombosis.
Outside pressure by any sort of tumour in the portal fissure.

In the last case it is very unusual for the bile-ducts to escape pressure, and thus you nearly always get jaundice.

Then as to disease of the peritoneum. The three commonest conditions are :—

Tubercle.
Growth.
Chronic peritonitis.

There is a condition also called simple ascites, on the principle that whenever we get anything in medicine that we cannot understand we at once name it simple There is an excellent reason why we do not get to understand this condition, for the patients don't die; you could not have a more satisfactory reason; you rub their abdomens over with mercurial ointments and you cure them, or, at any rate, they get better. There is reason to believe that many such cases are tuberculous. The patient I introduce to you as an example of ascites due to disease of the peritoneum, is the man I have already alluded to as presenting localised dulness in the front of his abdomen. He has been many times tapped, and he is also the subject of Bright's disease. His ascites is out of proportion to his general dropsy, and is, we believe, due to chronic peritonitis.

To go on to general dropsy, causes of this may be :—

Heart disease.
Chronic lung disease.
Bright's disease.
Anæmia.

The illustrative case of this group is a young woman with mitral stenosis whose abdomen we have lately tapped for ascites. The ascites in her case is disproportionately great with regard to her general dropsy. This is due, I think, to the fact that she has lately been pregnant, and her lax abdomen has encouraged the exudation of fluid into her peritoneal cavity. The old conflict between the English and the French

writers as to whether heart disease led to cirrhosis or not, might be raised on this case. In an enormous number of post-mortem examinations of heart disease Sir Samuel Wilks said that he never found cirrhosis without a history of alcohol. On the other hand, Charcot said that in a large proportion of cases of heart disease there was an increase of fibrous tissue in the liver. Probably both were right, for Wilks was speaking of the naked-eye appearances and Charcot of the microscopical aspect. In a good many cases medical men are responsible for the alcoholic history in these cases; the patient with heart disease is depressed and is ordered some alcohol to stimulate him, after a time he exceeds the dose and becomes a chronic drunkard.

Lastly, as to treatment, a few words must be said. You get rid of the fluid as from other parts by diuretics, diaphoretics, and purges. You make the patient's blood look to his abdomen to quench his thirst, to put it in a pseudo-scientific way; but if you are making his blood thirst for water, it is no use leaving a big jug by his bed. He is much more likely to quench his thirst from the jug than from his abdomen. While carrying out this treatment you must set a strict limit to the fluid diet. I am not so devoted to this treatment as to advise you to carry it so far as to make your patient miserable.

The question of the time for performing the operation of paracentesis abdominis is treated in the text books with the greatest possible disparity, the growing tendency seems, however, to be to advise tapping, early and often.

I must confess that I am not the least bit converted from the old view that you should never tap unless there is serious embarrassment to the heart and lungs. It always seems to me that if you have a full abdomen, there is great pressure, and the fluid can only be poured out slowly, an ounce a day or so; but when you tap there is room for the peritoneum to pour out pints. Early and frequent tapping promotes the exudation of valuable albuminous fluid. I should say, do not tap, at any rate, till the patient is uncomfortable.

Papers by Guy's Men.

Coxa Vara, or Deflection of the Neck of the Femur. By A. H. Tubby, M.S. Lond., F.R.C.S. Eng.—*British Medical Journal*, 23rd July.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Cases under Dr. Pye-Smith.

Philip	23.	Mitral stenosis and regurgitation. Aortic stenosis and regurgitation.
	24.	Charcot knee. Perforating ulcer. ? Tabes.
	25.	Spinal caries, with paraplegia.
	27.	Hepar auctum.
	29.	Disordered gait. Vomiting and strabismus.
	30.	Mitral stenosis and regurgitation. Tricuspid regurgitation.
	33.	Carcinoma ventriculi.
	34.	Impetigo with purpura. ? Broncho-pneumonia.
	36.	Myelitis.
	37.	Abdominal pain. Wasting. Vomiting.
Mary	30.	Mitral stenosis and regurgitation. Tricuspid regurgitation. Aortic regurgitation.
	33.	Mitral stenosis and regurgitation. Tricuspid regurgitation.
	37.	Mitral stenosis and regurgitation.

Cases under Dr. Goodhart.

Mary	13.	Lardaceous disease. Congenital syphilis
	14.	Exophthalmic goître.
	16.	Apical lobar pneumonia.
	17.	Phthisis.
	18.	Eczema.
	19.	Growth. Right-sided colotomy.
	21.	Hydatid of liver.
	22.	Pleurisy. Large kidney.
	23.	Cirrhosis. Hepatitis.
	24.	Enlarged heart, failing. Bright's disease
Philip	1.	Phthisis. Jacksonian epilepsy.
	2.	Pyrexia. ? Cause.
	3.	Mitral disease.
	6.	Mitral disease.
	7.	? Rheumatic fever.
	8.	Growth of ascending colon. Right-sided colotomy.
	11.	Myelitis.
	14.	Mitral disease.
	16.	Enlarged heart. Dyspnœa. ? Renal.
	19.	Acute rheumatism.
	20.	Morbus cordis.

Cases under Dr. Hale White.

Mary	2.	Pleuritic effusion.
	3.	? Gastric ulcer.

MARY 7. Infantile paralysis.
9. Chronic Bright. Cerebral hæmorrhage. ? Cystic kidney.
11. ? Gall-stones. ? Portal pyæmia.
STEPHEN 21. Phthisis.
22. Leprosy.
23. Cirrhosis of liver. Acute swelling of shoulder joint. Fluid in joint containing staphylococcus aureus.
25. Birth palsy.
26. Syphilis. Lardaceous disease. ? Cirrhosis.
27. Acute nephritis. Hæmaturia.
29. Old phthisis. Fibroid lung. Displaced heart.
31. Diabetes.
32. Chorea.
34. Mitral stenosis and regurgitation. Adherent pericardium.
35. Alcoholic heart.
36. ? Growth. ? Pernicious anæmia.

CASES UNDER DR. PERRY.

MARY 40. Mitral regurgitation and stenosis.
43. Appendicitis (recurrent).
44. Enteric fever.
45. Phthisis.
46. Tubercular peritonitis.
47. Mitral regurgitation.
50. Malignant disease of bladder.
STEPHEN 1. Aortic disease. Infective endocarditis.
2. Infective endocarditis.
3. Cirrhosis of liver. ? Syphilitic.
4. Aortic disease. Ascites.
5. Phthisis. Lardaceous disease.
8. Rheumatism. Mitral disease. Pericarditis.
10. Chorea.
11. Malignant disease of liver.
14. Sub-diaphragmatic abscess.
16. Acute Bright's disease.
17. Pyrexia. ? Renal calculus.
18. Cirrhosis of liver. Ascites.
19. Chorea.
20. Diabetes mellitus.

In the Surgical Wards.

CASES UNDER MR. JACOBSON (for MR. HOWSE).

NAAMAN 1. Tuberculous cervical adenitis.
2. Suppurating hæmatoma. Incised and drained.
6. Tuberculous knee. Excised.
8. Enlarged glands in neck. ? Cause.
11. Talipes equinus and pes cavus.
18. Epithelioma scroti. Excised.
NAAMAN 21. Vesical hæmaturia. Median perineal cystotomy. Oxalate calculus removed and ulcer, (? epitheliomatous) found.
DORCAS 3. Cleft palate and hare-lip. Cheiloplasty.

CASES UNDER MR. DAVIES-COLLEY.

LUKE 3. Irreducible omental inguinal hernia and radical cure.
5. Æt. 61. Multiple thyroid adenomata.
8. Ulceration of nose and palate from congenital syphilis.
10. Enlarged prostate.
21. Epithelioma nasi. Secondary preauricular glands.
LYDIA 1. Congenital deformity of ankle.
2. Tuberculous cystitis. Curetted.
4. Epithelioma of pharynx. Secondary glands in neck.
6. Synovitis of knee. ? Gonorrhœal.
6. Strangulated femoral hernia. Death.
8. Pott's fracture.
9. Æt. 71. Carcinoma mammæ. Excised.
19. Impacted extra-capsular fracture of neck of femur.
Cot C. Fractured femur. Vertical suspension.
CORNELIUS 5. "Obturator" dislocation of hip. Reduced.
7. Head injury. Coma. Trephining. Death. ? Lacerated brain.

CASE UNDER MR. SYMONDS.

LUKE 16. Epithelioma of hip. Excised.
MARTHA 13. Calculous pyonephrosis. Nephrolithotomy.
14. Flexion after excision of tuberculous knee.

CASES UNDER MR. DUNN (for MR. LUCAS, MR. GOLDING-BIRD, and MR. LANE).

JOB 1. Chronic tenosynovitis of wrist.
2. Strangulated femoral hernia.
12. Pott's disease.
15. Tuberculous empyema. Sinus persisting.
21. Arthritis of knee. Explored for loose body. None found.
LAZARUS 2. Old rodent ulcer. Previous excision of eye. Necrosis of maxilla.
10. Retained testis.
13. Retained testis: (inguinal). Castration.
LYDIA 12. Traumatic temporal aneurysm.
13. Rachitic tibiæ. Osteotomies.
Cot C. Penetrating abdominal wound (cut with feeding bottle). Irrigation and sewn up.
CHARITY 22. Tuberculous epiphysitis of humerus. Elbow joint effected.
Cot B. Cystic nævo-lipoma of thigh. Excised.
MARTHA 1. Tuberculous axillary glands. Excised.
5. Cystic breast, with intra-cystic papilloma. Excised.
12. ? Rodent ulcer of face. ? Gummatous ulcer. Potass. Iodide given.

MARTHA 23. Recurrent appendicitis: appendicectomy.
CORNELIUS 13. Fractured base.
ASTLEY COOPER. 3. Penetrating wound of orbit. Death in 48 hours. Suppurative meningitis.
3. Fractured patella.
5. Pott's fracture.
7. Pott's fracture.
7. Scalp wound. Coma. Death. ? Cerebral laceration.
17. Fractured upper jaw.
26. Abdominal contusion.
27. Compound depressed fracture of vertex. Fragments of bone removed.
29. Fractured ribs. Orthopnœa.

"Clinical."

JOHN 2. Gastric neurosis. Emesis.
3. Broncho-pneumonia.
4. Periproctal abscess.
6. Mitral stenosis and regurgitation. Aortic regurgitation. Angina.
9. Perforated gastric ulcer. Operation.
11. Chronic tubal nephritis.
12. Diabetes mellitus.
13. Appendicular colic. Laparotomy.
14. Empyæma.
15. Broncho-pneumonia affecting the pleurogenous fibro-pneumonic right base.
16. Cerebro-spinal meningitis. Convalescent
MIRIAM 17. Hydroa herpetiforme.
18. Aortic regurgitation. Pericarditis.
20. Pyrexia. ? Cause.
21. Broncho-pneumonia.
23. Peritoneal cysts. Operation.
25. Peritonitis.
26. Tuberculous peritonitis. Acute intestinal obstruction. Operation.
29. Meningitis.
30. Tubercular cystitis.
31. Acute tubal nephritis.
32. Broncho-pneumonia.
Cot 33. Diphtheria. Tracheotomy.
34. Marasmus.
35. Tubercular meningitis. Convalescent.
36. Intussusception.

CASE UNDER DR. PERRY.

STEPHEN 4.—W. F. S., æt. 3½. Admitted on August 5th, 1898, for diarrhœa and vomiting.

Family history.—Father is delicate, and his grandmother on his father's side died suddenly of heart disease. An aunt has heart disease.

Personal medical history.—Always pale and delicate. Has never had any serious illness, but always rather inclined to diarrhœa. Has been troubled with headaches and vomiting after meals. This occurred usually once or twice a week.

Present illness.—July 22nd, 1898, he complained of a bad throat, with pains in head and abdomen. No vomiting. He had some medicine given to him, but he vomited after each dose. Was sleepy and drowsy, but able to take food well. This condition lasted until July 28th. On the night of the 28th patient vomited seven times—vomit of a watery and yellow colour. Headache and sore throat was also complained of. After an attack of vomiting, the abdominal pain was relieved. On the 31st he was a little better. On August 5th a few streaks of blood appeared in the vomit.

On admission.—Temperature 91°: pulse 168; respiration 104. Patient had a white, waxy appearance, and appeared to be very ill. No anasarca present. No cyanosis.

Alimentary system.—Normal.

Respiratory system.—Breathing difficult and expiration was of a jerky character. Slight bulging of left side of chest about 3rd and 4th chondro-sternal junctions. Both sides of chest move equally, but there is some sucking in of the lower intercostal spaces during expiration. Impaired resonance at both bases behind as far as the angles of the scapulæ. Inspiratory and expiratory râles of a consonating character heard over both lungs, but especially at the bases behind.

Circulatory system.—Pulse rapid, compressible, and at times irregular. Impulse of heart diffuse, but best felt in 5th space about three-quarters of an inch external to left nipple. A thrill could be felt at apex; precordial dulness not increased. A systolic bruit of a blowing character heard over mitral area, which could be traced out towards axilla.

Urine.—Normal.

6th. No optic neuritis. Patient very restless and slept very little during the night. Vomiting continues. Pulse at one time was 180, and respirations 120. Temperature subnormal.

7th. Vomiting has ceased. Taking food fairly well. Complains of headache, and is in a semi-conscious state, and continually crying out.

8th. Patient more conscious. Systolic murmur at apex as before. Has had no diarrhœa since admission, and pulse 140, respiration 84. Temperature rose to 99·4°. Dulness has appeared at left apex, and impaired note over whole of left side of chest. Consonating râles as before. About 6.30 p.m. patient got worse, and died about three hours later.

Abstract of Autopsy.—

Lungs.—Acute pleurisy at right base behind. Slight serous effusion. *Right lung.*—Posterior part of lower lobe collapsed. *Left lung.*—Both lobes almost completely collapsed. One bronchial gland caseous in centre, with small tubercles around.

Heart.—Weight 5½ ozs. Both ventricles dilated and hypertrophied. Ante-mortem clot at apex of right ventricle. Recent vegetations on margin of mitral valve.

Kidneys.—4 ozs. Tough.

Brain.—41 ozs. No tumour. No meningitis.

Some Clinical Observations on Variola.

THESE observations are founded on cases occurring in the recent Middlesbrough Epidemic, and no adherence is maintained to the orthodox descriptions given by authorities.

Premonitory symptoms.—By far the most common of these was headache, generally severe, and often fatal. Pain in the back was not so constant as one is led to suppose. In about twenty-five per cent. of the cases there was no backache at all; shivering, alternate flushes of heat and cold were often complained of. When there was no backache vomiting was generally present, and it occurred on the second or third day of the onset. Pains in limbs, lassitude, giddiness, and a feeling of incapacity for work were very frequent.

Premonitory rashes.—The opportunities for observing these were limited to the few cases which developed the disease in or about the hospital. In nearly every instance it was a variolous eruption, very dark red, and with small papules about the size of pin's heads. It was most marked, often only present, on the arms over the triceps, and on the front and sides of the legs and ankles, rather than on the lower part of abdomen and thighs. Another rash was more a dark staining of the skin in long patches of one or two inches by about one-third of an inch, wavy and somewhat irregular, not unlike erythema cyratum except that there were no definite papules or vesicles; the patches were slightly raised and often had a fairly distinct margin.

None of the rashes caused itching of the skin. They mostly appeared on the second day and disappeared before the onset of the specific eruption.

Specific Eruption.—This most frequently appears first on the face, generally forehead or cheek, but it is not uncommonly first seen on the back of the wrist.

Taking a severe case about to become confluent, the earliest stage is seen to be a general red flush of the face and neck, frequently fading and becoming paler towards border of the hair. This flushed surface is closely studded with small dark red raised papules, little bigger than pin's heads, which at the end of the first day usually become vesicular and contain clear serum. Just before and during this vesicular stage the vesicle increases much in size, so that the whole flushed surface —face and neck, wrists and back of forearms—become covered with clear vesicles very closely set but still distinct from each other. It is this clear serum contained in the vesicles at this stage which is investigated for the specific micro-organism of variola. This stage lasts for from six to twelve or eighteen hours, and then the centre of the vesicle, the highest point, is seen to become opaque and of a dull silver-grey colour, while edge of the vesicle remains clear; gradually this opacity spreads till the whole vesicle is involved. If now the vesicle be cut into it is seen that its wall has increased very much in thickness, especially at that part which was furthest from the skin, and that though the vesicle appears solid yet it still contains some clear serum.

Numerous attempts were made to obtain cultivations from the serum at this stage, with a view to ascertaining whether the change was produced by micro-organisms, but in each case the serum was sterile.

It is generally accepted that the opacity and thickening are due to coagulation necrosis of the leucocytes contained in the serum, and this accounts for the opacity occurring first at the pole of the vesicle most distant from the skin.

At the end of this stage the vesicle frequently becomes umbilicated in the centre. This umbilication being caused, the density of the necrosis is greatest at the point where the change first occurs, *i.e.*, the centre or highest point of the vesicle, and not to the presence of hair, &c. Moreover a hair frequently protrudes from the sides of the vesicle without producing any depression.

This stage of coagulation continues generally for about two days, frequently longer, during which the area covered by a vesicle frequently increases. Then the vesicle becomes white. Its contents are solid or semi-solid and of a thick creamy colour and consistency. This stage is well shown in two wax models of hands in the Pathological Museum. It is remarkable that the pock on the trunk frequently remains in this stage till absorption begins and does not become purulent.

About the eighth or tenth day the vesicles on the face, and perhaps on the hands, assume a yellowish colour. The suppuration, like the opacity, begins on the surface of the vesicle at the part most distant from the skin, and gradually spreads over it, so that it is possible in early stages to remove the suppurating crust. Gradually the whole vesicle becomes purulent, and generally by this time the vesicles have coalesced on the face, giving rise to confluence. This purulence lasts for three or four days, and then begins to dry superficially, leaving dry "crusts," the deeper parts of the vesicle beginning to be absorbed.

In any ordinary confluent case this is generally the fatal period.

Varieties.—In confluent cases one may recognise two varieties:—

a. One in which the vesicles are large and coalesce in the stages preceding suppuration, and in which the outline of the vesicles can still be frequently traced after coalescence. When recovery occurs in confluent cases they are generally of this variety.

b. The other, in which the vesicles are small and coalesce, in the early necrotic stage, into masses a square inch or more in area; the mass does not show the outlines of the vesicles except at its edge, and is not raised much above the level of the skin. The face has the appearance of having a dull grey thin mask tightly stretched over it, and only showing irregularities here and there. These cases were invariably fatal.

So in hæmorrhagic cases there are those with a well developed eruption in which the hæmorrhage appears as a small purple spot in the centre of a vesicle here and

there on the legs, arms, or trunk, and in which a subcutaneous hæmorrhage may underlie three or four vesicles showing as a purpuric patch. In these death occurs in three, four, or five days from onset.

And those—the "malignant"—in which there is no eruption, but the face and whole body is a dull-red colour; very early there are streaks of capillary hæmorrhages about the shoulders, back, thighs and legs, and death occurs in about twenty-four hours, the patient being absolutely clear-headed till the moment of his death.

The term suppurative fever must certainly be a misnomer, for the secondary rise of temperature occurs during, or just after, the coagulation stage when there is no suppuration of the vesicles, and suppuration does not occur often for two or three days after this secondary rise.

Attempts to modify eruption. — Seeing that death frequently occurred during or just after the process of absorption of the pustules, and apparently from toxic poisoning—as indicated by a respiratory rate of fifty or sixty per minute with nothing abnormal in the lungs, tremors, or pulse rate of over a hundred (difficult to feel as eruption formed a sort of thick pad over artery) and the mode of death being sudden cardiac failure, it was thought that there was added to the toxin of variola a toxin resulting from the suppuration. With a view to eliminating this latter toxin, if possible, the writer attempted to prevent suppuration.

The method adopted was: in the papular or very early vesicular stage the forehead was thoroughly scrubbed with soap and water, afterwards with Liq. Hydrarg. Perchlor. 1–1000, subsequently with ether. Then was painted on collodion, containing iodoform in suspension, as giving better results than collodion alone, which was used at first.

When done with sufficient care it was found that suppuration could be prevented, but that the "creamy" stage of the vesicle preceding suppuration could not.

The vesicle also tended to have a broader base, and to rise less above the surface of the skin, and instead of leaving a deep pit, or as often happened a small bump from inflammatory thickening of the skin, there was left a rather broader but more shallow pit, very little sunk below the surface of the skin.

Again, an arm was taken and sterilization attempted as in the forehead, but a compress of Liq. Hydrarg. Perchlor. (1–2000) was left on for from five to six hours, Then the arm was carefully bandaged in cyanide gauze, blue wool, and left till the vesicles or pustules were well developed on the opposite arm. The arm was then unbandaged, when it was found that suppuration was again frequently prevented, but that the "creamy" change following the necrosis was not.

Moreover the individual pock on the sterilised arm was always smaller than on the uncovered arm, the surrounding zone of inflammation was less, and the patient asserted that the bandaged arm was less irritable.

These attempts were repeated on about two dozen patients, male and female, and nearly always with the results above given. Success depended on the care with which the preliminary cleansing was done, and on getting the eruption in a very early stage.

The best results were obtained when a strip of gauze was sealed with collodion on the arm beneath the gauze dressings.

Complications.—Scarlet fever.—About six scattered cases occurred, all after variola had developed, and two or three just after the secondary fever had reached its highest point, thus giving interesting charts.

Erysipelas.—About the same number of cases, all facial, as of scarlet, but followed mild variola attacks and in convalescent stage.

Eyes.—Conjunctivitis was almost universal and disappeared as convalesence set in It was generally non-purulent but became purulent in severe cases.

Corneal ulcer ("simple") was very common, generally in the upper and outer quadrant. It generally occurred during convalescence and yielded quickly to treatment. The preliminary pock on the cornea was not seen.

Bullous keratitis occurred in several cases, involving the lower third of the cornea as a clear bleb. When the patient would not submit to having the bleb snipped away, it yielded to atropine and a lotion of Liq. Hydrarg. Perchlor. (1–5000), leaving in one or two instances a small white scar near the outer edge of the cornea.

Iritis was comparatively rare, there being only two or three instances and none of severe form. A few cases of what seemed to be pock on the scleral conjunctiva somewhat resembled iritis, but there was an absence of pain and other symptoms which easily excluded iritis.

Suppurative keratitis occurred in about six cases, all of which recovered under fomentations, atropine and a mercury lotion. In one case only—where the patient was semi-maniacal and treatment almost impossible—was the sight lost. Subsequently, dense opacities occurred in the cornea and the iris became adherent in places. There was, however, a small portion where if iridectomy be done later some vision may be gained.

Acute laryngitis was not uncommon in children. One case necessitated tracheotomy.

Neuritis.?—In a few cases there was regurgitation of milk through the nose, which subsided in two or three days, and in which the fauces appeared anæsthetic—but whether this was a true neuritis is doubtful.

Aphonia frequently occurred as the result of slight œdema of the larynx. There was a remarkable absence of pulmonary complications, bronchitis not occurring except in a few children, and pneumonia only in one case after scarlet fever.

The most common complications were *boils and abscesses*. There was a tendency for a pyæmic condition to ensue on severe attacks, and patients frequently had from twenty to fifty incisions in various parts for abscesses. These were all superficial and especially occurred on the scalp, back, and around joints, but there was no case of arthritis.

Cellulitis frequently occurred around the elbow or knee, and was generally followed by profuse suppuration.

Otorrhœa was rare.

Endometritis, apparently acute, occurred in one case.

Abortion was frequent from the third to the seventh month, but did not invariably follow a moderately severe attack.

Mania occurred in three cases, with attempted suicide in two. There was complete recovery in all three.

Transitory albuminuria and œdema occurred in a few cases.

It is remarkable that complications were almost entirely confined to men, the women being very free from them.

No cases of myelitis occurred.

Prognosis.—One is generally guided by the character of the eruption. If at the earliest appearance the papules are closely set and the skin flushed it is safe to predict a severe attack. Hæmorrhagic cases and those of the second variety of confluence above described were always fatal.

Severe confluent cases of the first variety generally did well when they took milk and nutrients without difficulty, when the pulse though quick was palpable, and when tremors were absent. The contrary condition generally meant approaching dissolution.

The pulse was an uncertain guide owing to the difficulty of feeling the artery anywhere through the diseased skin. It was nearly always quickened to 100 or 120 in severe cases, regular and full, but often for some hours before the fatal termination pulselessness of the wrist was noticed.

Diagnosis.—Of the cases sent up as variola, two or three were acne varioliformis, one urticaria papulosa, purpura hæmorrhagica, and one case diagnosed as typhus fever, but without the typical mulberry rash. In mild cases one was guided by premonitory symptoms, but more by the distribution of the eruption, which was more copious on the face than the hands, the trunk and legs less so. But if with four or five spots on the face and one or two on the arms, and perhaps one or two on the back, any one spot can be seen in the grey necrotic stage, looking almost like a pearl in the centre of a narrow zone of inflammatory redness, there can be little doubt as to the cause.

A very large proportion of cases in this premonitory illness were diagnosed as influenza.

Post-mortem appearance.—As a rule little is seen besides slight hyperæmia of the viscera and some œdema of the lungs.

In hæmorrhagic cases there are small patches of hæmorrhage in the capsules of viscera, notably the liver and kidneys, and in the pelvis of the kidneys, but none in the substance of the organs.

In hæmorrhagic cases the lungs are intensely œdematous, and this condition appears to be the immediate cause of death is these cases.

Treatment.—For the initial pyrexia, quinine and acetate of ammonia were largely used, but without much benefit. In cases that would probably be severe, and possibly fatal, strychnine and digitalis seemed to give the best results. But the chief reliance had to be put in feeding with milk, meat essences, stimulants and careful nursing.

Baths gave the best results when absorption of the pustules was in process, earlier than that they were liable to cause collapse.

Masks of lint, kept soaked in boracic lotion and applied to the face when it was a mass of pustules, aided in cleaning off the purulent mass, but were objected to by many patients on æsthetic grounds. Good results were got by syringing the faces with plain warm water or boracic lotion every half hour, but this was inconvenient to nurses.

Boracic masks best kept down the oppressive sickening smell given off from the face.

Salicylate of soda appeared to relieve the pain in the back, and antipyrin the headache.

Sore throat was only relieved by inhalations of Tinct. Benzoin Co., and the nose and mouth were, in severe cases, syringed with Liq. Sodæ Chlorinata, to the great comfort of the patients.

For children opium and chloral often proved unavailing but the most violent generally yielded to small doses of morphia subcutaneously.

The views held as to death resulting from toxæmia led the writer to treat six cases with injections of anti-streptococcin. In such case the prognosis was the gravest.

The results obtained as to lowering of temperature were striking, four cases recovered and were remarkable in that, though the attack was of the severest character, yet it seemed shorter, the convalescence was quicker, and also for the absence of complications. The abscesses, which seemed almost a necessity in other cases, were entirely absent in these and only one or two of them had any boils.

W. T. LINDSAY.

From the Gazette's Special Pathologist.

NOTICES.

J. W. H., Whitstable.—These lymphatic glands are infiltrated with a soft carcinomatous growth, which is degenerated in the centre.

H., Reigate. — Reaction, alkaline; sp. gr. 1007; albumen, a small amount; blood, a very few discs; sugar absent. *Microscopical examination.*—The centrifugalized deposit contains a small number of hyaline casts and some cells suspiciously like renal epithelium. There are also some leucocytes and crystals of triple phosphate.

H., Ramsgate.—A very few tubercle bacilli are present in the sputum.

PATHOLOGIST.

Passim.

The next Gazette will be published on Saturday, September 10th.

In another column will be found a short review of the cricket season. Except for the Cup Tie the season has been a very successful one, and it is to be hoped that Guy's may get the cup next year, as many of this year's team will still be playing next year. Mr. K. V. Trubshaw heads both the batting and bowling averages. In batting he has a much better average than anyone else, but we doubt if the bowling average is quite such a sure guide, for it must be confessed that his bowling does not equal that of A. E. Clarke.

Mr. W. S. Handley has been appointed Dental Anæsthetist and Anæsthetist to the Ophthalmic department.

Mr. E. I. Spriggs has been appointed Demonstrator of Physiology in place of Mr. Hopkins, who has left Guy's for Cambridge.

The Beaney Pathology Prize has been awarded to Mr. W. T. Milton, who has our heartiest congratulations.

Arrangements have been made for the *verbatim* reporting of all clinical lectures given at the hospital during the next year. By this means a great saving of time and trouble will be afforded to members of the Staff in the correcting of proofs for publication, and we shall also be enabled to print more of these valuable lectures than has been possible hitherto. Of course, as formerly, these lectures will not be published against the wishes of the Staff, if they desire to retain them, but it is hoped that with more complete reports of the lectures, the objections to their appearing for the first time in the Gazette will be lessened.

We must apologize for a rather inordinate number of book reviews in to-day's issue, but the reviews had been getting behind hand, and in this dull season there is an opening for a calm contemplation of current medical literature in the Gazette. If, however, some of the reviews are not pitched in a strain of calm contemplation, it is not our fault but that of the irresponsible reviewer.

Dr. Preston Miller, of Washington, during a tour in Europe, has been contributing a series of letters to the New York *Medical Record*, in some of which he comments on London Hospitals, including Guy's, and these remarks have been quoted in last week's *Hospital*.

He is apparently not at all impressed with gynæcology at Guy's, and finds many things antiquated and to his mind unjustifiable, as for example, open fireplaces in the operating rooms, which are "prolific of more smoke than heat"; the fact that the operating room at Guy's has a floor of wide boards of soft wood, and contains "considerable furniture," and pictures, etc., on the walls. There is another note to the effect that, "The surgeons in London, like those of Paris, wear long finger nails, and like their French neighbours operate in chillingly cold rooms.

Now this gentleman is very observant, and his remarks are mostly true, but he did not take into account the fact that this Hospital is an old, historic place and cannot be rebuilt and modernized in a day, or without the funds, with which similar buildings are endowed in America. Queen Victoria ward also, with all its efforts towards an aseptic ideal, seems to have escaped his notice.

Another illusion has been swept away in the last week. We had always considered it one of the fundamental facts of medicine that cirrhosis of the liver was either specific or alcoholic, and beyond the reach of bacteriological iconoclasts. But in the *Lancet* of August 13th, Prof. Adami, of Montreal, discloses his discovery of a bacillus specific to this disease.

His discovery came about in this wise. He was sent by the Canadian Government to investigate a remarkable disease affecting the cattle in a small area of the country—the "Pictou" cattle disease, of which the main lesion was an extensive cirrhosis of the liver. In every case, by suitable methods, a bacillus or diplococcus was found, which could be cultivated on artificial media, and when injected into rabbits caused their death from cirrhosis, and ascites without jaundice.

The similarity between this disease and cirrhosis in man led Professor Adami to study the latter disease in this new light, with the result that he has discovered, in most cases, a micro-

organism apparently identical with this diplococcus of bovine cirrhosis. Of course, as he remarks, it is absurd to suppose that this bacillus is the sole cause of cirrhosis, or that it is found in every case, or in those cases of cirrhosis in young children, but in his experience all cases of cirrhosis after forty years of age which he has examined present this bacillus identical with that of the infective cirrhosis of cattle.

THE usual House Dinner at the commencement of the Winter Session will take place on October 3rd, at 6 p.m., before the Physical Society's opening meeting. Dr. Pye Smith, President of the Students' Club, has kindly consented to take the chair. Tickets are limited to 100, and will cost 3s. 6d. Application to be made to Miss Moore, Stewardess.

WE are publishing in this issue some notes on Variola. by Mr. W. J. Lindsay, who had exceptional opportunities of observing this disease in the recent epidemic at Middlesbrough. Mr. Lindsay states that no attention has been paid to the orthodox description given in the text books, and we are very thankful, for nothing is more useful than the unbiassed and acute opinions of a careful observer. It is a great pity that some of the papers read before the Physical Society are not of this description instead of badly digested abstracts of well-known authorities.

MR. PHILIP TURNER and Mr. STOEHR have our deepest sympathies for their undeserved publicity this week. All medical men reading the accounts will appreciate the extent of the popular error, and the public themselves cannot possibly estimate the difficulty of diagnosis of certain doubtful head injuries. The whole incident only emphasizes the urgent necessity for a "Drunk or Dying" room in connection with the Front Surgery.

No doubt the young gentleman who is doing the editor's holiday on the staff of the *Daily Chronicle* would like a full statement from the Governors of this institution, as suggested in Thursday's issue, for it would provide him with excellent copy during a dull season, and the lead-poisoning agitation is getting monotonous. Perhaps Mr. Hooley or the giant gooseberry will supply him with the necessary diversion during the next forty-eight hours.

The results of the Preliminary Scientific Examination are very encouraging this year. Mr. P. R. Bolus obtained 1st class honours in Chemistry, and Mr. E. H. B. Milson, 2nd class honours in the same subject; while of nineteen candidates up for examination only three failed.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

The Dressers' Room.

DEAR SIR,—It is proposed to raise a fund for the purpose of cleaning, re-glazing, and generally renovating the photographs of past residents, teams, etc., in the dressers' rooms. These photographs are now in a very bad state of repair, and several old Guy's men have suggested that it would be easy to raise, by subscription, a sufficient sum to carry out these alterations. The subscription will be 2s. 6d. or 5s., and is to be sent to the President of the Residents, The College, and will be duly acknowledged in the GAZETTE.—Yours truly,

F. S. BATCHELOR.

Appointments.

PROSECTORS FOR THE WINTER SESSION, 1898-99.

OCTOBER TO DECEMBER.—Messrs. N. N. A. Houghton, A. E. H. Pakes, C. H. Robertson, G. S. Robertson, H. T. Palmer, W. E. J. Tuohy.

JANUARY TO MARCH.—Messrs. C. H. Denyer, E. G. Goldie, J. T. Hicks, W. W. Read, F. C. Robinson, A. H. E. Wall.

CIVIL.

BARNES, J. S., M.B., B.C. Camb., has been appointed a Resident Medical Officer and Public Vaccinator for the Urban, Suburban, and Rural Districts of Katanning, Western Australia.

MARTIN, A., M.D. Lond., M.R.C.P., M.R.C.S., has been appointed an Honorary Surgeon for the Wellington Hospital, New Zealand.

PYE-SMITH, R. J., F.R.C.S. Eng., L.R.C.P. Lond., has been appointed a Medical Referee, under the Workmens' Compensation Act, 1897, to act generally for the Northern Division (Retford, Doncaster and Thorne), County Court Circuit, No. 18, although appointed a Referee for the Circuit, No. 13.

SELLS, C. J., L.R.C.P. Lond., M.R.C.S., has been re-appointed a Medical Officer for the Worplesdon Sanitary District of the Guildford Union.

MILITARY.

CAPTAINS J. V. SALVAGE, M.D., M.S. Dur., and E. S. MARDER, Royal Army Medical Corps, are promoted to be Majors.

Pass List.

University of London, July, 1898.

INTERMEDIATE EXAMINATION IN MEDICINE.

EXAMINATION FOR HONOURS.

Physiology and Histology (Third Class).—Mr. Stanley Hodgson.

PASS EXAMINATION.

Entire Examination (Second Division).—W. R. Dunstan, F. G. Gibson, J. A. B. Hammond, C. Tessier, K. V. Trubshaw.

Excluding Physiology (Second Division).—R. M. Barron, F. A. Beattie, J. D. Bridger, D. Forsyth. T. A. Matthews, S. J. Ormond, A. C. Ransford, M. J. Rees.

Physiology only (Second Division). —A. Fraser, J. T. M. McDougall, A. Moon, D. L. Morgan.

INTERMEDIATE SCIENCE AND PRELIMINARY SCIENTIFIC EXAMINATIONS CONJOINTLY.

EXAMINATION FOR HONOURS.

Inorganic Chemistry (First Class).—P. R. Bolus. (Second Class).—E. H. B. Milsom.

PRELIMINARY SCIENTIFIC EXAMINATION.

Entire Examination (First Division).—W. F. Box, F. Rogerson, H. D. Smart. (Second Division).—F. W. Fawssett, J. J. Gardiner, C. E. Iredell, C. D. Pye-Smith, A. H. Snell, A. M. Webber, B. H. Wedd.

Chemistry and Experimental Physics.—P. A. S. Dyson, P. A. Peall.

Biology.—H. S. Brown, P. W. Hamond.

Final Conjoint Examination, July, 1898.

Medicine and Surgery.—*H. P. W. Barrow, *L. Humphry, W. T. Milton, *W. C. Milward, F. J. Nicholls.

Medicine and Midwifery.—R. Balderston, E. H. Cragg.

Surgery and Midwifery.—L. H. McGavin.

Medicine only.—*H. W. Graham, *E. G. Goddard, *W. J. S. Harvey, J. H. Jones, A. H. B. Kirkman, J. E. H. Parsons, *J. C. S. Peatson, S. B. C. C. A. Pennington, *A. A. Price, *W. C. Pritchard, W. S. Richardson, E. W. S. Rowland, *W. K. Wills, C. C. Worts.

Surgery only.—K. B. Alexander, *L. E. C. Handson, F. J. H. Martin, *S. H. Mason, J. E. Powell, A. H. M. Saward, *C. Shepherd.

Midwifery only.—W. L. Baker, T. W. S. Browne, A. H. Carter, A. E. Clarke, E. B. Dowsett, J. W. Ensor, E. A. Evans, H. E. C. Fox, R. Michell, A. A. Miller, G. C. Owsley, R. J. Pritchard, H. C. Sturdy, A. R. Thomas.

* Denotes completion of examination.

Second Conjoint Examination.

S. C. H. Bent, G. B. F. Churchill, P. L. Hickes, L. Hirsch, R. Jiménez, H. D. Kempthorne, G. J. Lewis, R. P. Marshall, P. J. Nash, F. M. M. Ommanney, W. M Robson, S. S. H. Shannon, F. W. Smith, V. M. Wallis.

First Conjoint Examination.

Part I. (Chemistry and Physics.)—H. O. M. Beadnell, P. C. V. Bent, C. H. Bubb, W. H. Bush, J. W. Caton, P. P. Cole, C. H. Denyer, E. Faulks, J. W. Featherstone, B. Glendining, H. T. Palmer, C. C. Reece, T. M. Smith, O. B. Travers.

Part II. (Practical Pharmacy.)—G. H. Bedford, R. E. Brayne, R. T. Collins, H. R. Grellet, J. W. Gromitt, H. A. Higgens, G. F. Humphreys, W. W. C. Jones, R. C. Lawry, I. Lewis, C. A. Lower, W. McIlroy, A. A. Miller, S. L. Pallant, J. D. Pearson, E. W. H. Shenton, M. C. Wetherell, H. C. Winckworth.

Part III. (Elementary Biology.)—J. W. Caton, C. M. L. Cowper, E. N. Jupp, M. B. Taylor, H. W. Wallis, J. Williams, R. M. Wingent.

A Note on Mumps in the Adult.

By Gerald Sichel, F.R.C.S., R.N.

From reading the ordinary text-books on medicine one is led to suppose that mumps attacks the adult in an exactly similar manner to the way it affects children. Among adults it is certainly somewhat rare, but a consideration of the following cases shows that the parotid swelling is usually less marked and decidedly less painful and tender than in a child, and constitutional disturbance is almost entirely absent, unless orchitis sets in, when there is great pain and tenderness, accompanied by a considerable rise of temperature. In two of the cases it will be seen that the swelling of the salivary gland was so slight that the circumstance of its occurring was almost overlooked by the patient, and the fact only elicited after close and careful questioning. Another thing to notice is that in none of the cases was there any marked stiffness of the jaw; it is well to bear these facts in mind, as cases very often only first consult one when the testicular trouble occurs.

The above facts are probably well recognised by the majority of practitioners, but inasmuch as they appear to be systematically passed over by writers, I thought that publication of the following cases might prove useful.

Case I.—L. T., æt. 24 years. Admitted for "swollen testicle" and temperature of 103°; the swelling affected both epididymis and body of the right testicle; on close questioning it was found that he was in the habit of frequently visiting a friend who suffered from mumps, and had himself had a small painful lump in his neck some days ago. There was nothing else to account for

his trouble, and after reaching a temperature of nearly 105°, both the fever and testicular swelling rapidly subsided.

Case II.—T. S., æt. 40 years. Came to sick bay with much swelling of left and slight swelling of right parotid; came from a ship where they had had a case of mumps; no pain or tenderness; temperature 98°. He was sent to Haslar Hospital where subsequently orchitis and a very high temperature (about 104°) set in.

Case III.—W. G., æt. 21. Complained of slight "pains about him," also some swelling of right parotid, which was slightly painful and caused his jaw to feel a little stiff. Movements of the temporo-maxillary joints did not appear to be in any way impaired; temperature 99·8°. He was sent to Haulbowline Hospital.

Case IV.—C. S., æt. 23. Slight swelling of both parotids; scarcely any pain or tenderness: no fever.

Case V.—E. R., æt. 24. Came to sick bay with swelling of left testicle; temperature 101·4°. Later the other testicle also became affected and temperature went up to 103·4°. About 10 days before I saw him I found that he had had a small lump on the right side of his neck. Some time ago one of his messmates had had mumps; there was no other cause for the orchitis.

Emsworth Cottage Hospital.

Now that the torch of science has been brandished about for some five thousand years, and there are left but few corners of the earth unilluminated by its rays, the opening of yet another Cottage Hospital, in addition to the already considerable list, is in itself no very great matter. The Emsworth Cottage Hospital has, however, very special claims to the interest and sympathy of all Guy's men, whether at home or abroad, for it is, before everything else, a Guy's product, a Guy's institution, if one may say so, a flourishing offset of the parent tree. Add to this that the opening ceremony was performed on Saturday, July 23rd, by our beloved Consulting Physician, Sir Samuel Wilks, assisted by Dr. Goodhart, and one has ample reason for giving a short account of the proceedings. The inception of the movement which has culminated in the erection of the present fine building, was described by Mr. Lockhart Stephens in a telling and vigorous speech. Eleven years ago, he said, it so fell out that some poor woman had to undergo a somewhat severe surgical operation. A charitable lady of the neighbourhood, hearing of this, and of the difficulties which hedged round the proceedings in the patient's own home, generously offered to keep a room permanently opened for such purposes. This room was replaced by a little cottage, in a side street of Emsworth, which was furnished as a hospital. After about nine years of good work, it was felt that a larger, more modern, and more commodious building was called for. The Diamond Jubilee of the Queen happening at about the same time, it was a very happy idea which suggested that the new hospital should stand as a memorial of that glad event. The idea met with very general, and very generous, approval and support, so that a sum of money was quickly raised for the building, furnishing and partial endowment of a thoroughly up-to-date little hospital of six beds. Subjoined is the account of the proceedings as given in the *Standard* of July 25th, 1898.

A cottage Hospital erected at Emsworth, Hampshire, as a memorial of the Queen's Diamond Jubilee, was opened on Saturday afternoon, by Sir Samuel Wilks, President of the Royal College of Physicians and Physician Extraordinary to the Queen. The Rector of Emsworth (the Rev. H. Guildford Sprigg), as President of the Committee, gave some details in reference to the undertaking, and stated that her Majesty had been informed of what had been done by those who desired to do honour to her, and she had sent him a gracious message in reply. It was contained in a letter from Sir Arthur Bigge, her Majesty's private secretary, who wrote:—

"The facts contained in your letter of the 19th inst. have been brought to the notice of the Queen. I am authorised to assure you her Majesty has learnt with much satisfaction of the liberal and charitable manner in which the people of Emsworth, generously assisted by others, have commemorated her Diamond Jubilee by building a village hospital. While thus showing their loyalty and devotion to the Queen, they have nobly contributed to a work of mercy with which her Majesty heartily sympathises."

The company, at the suggestion of the Rector, resolved that the following telegram should be at once sent to her Majesty:—

"To the Queen, Osborne,—The people of Emsworth and district dutifully and gratefully acknowledge her Majesty's gracious message concerning their Diamond Jubilee Memorial Hospital, now being opened by Sir Samuel Wilks, Bart., President of the Royal College of Physicians, and with heartfelt loyalty sing 'God save the Queen.'"

Some verses of the National Anthem having been sung,

Sir Samuel Wilks, after a few introductory remarks, said he could remember years and years ago when these hospitals did not exist. He remembered being told of a case which occurred in that county, where a poor man with a fractured leg was jolted in a cart for miles when being taken to the nearest town. He remembered what difficulties doctors had to contend against, when called upon to perform operations in the old times, before the introduction of anæsthetics. An old friend of his had told him of a case of a very plucky man who had to be operated on, and who had to hold the candle while it was done. Having gone over this Cottage Hospital, it seemed to him that it had been arranged in the best manner possible; the wards had the proper cubic space; there was plenty of light and air, and the ventilation was good; and with regard to all the other arrangements, as far as he could see, they seemed to be pretty perfect, and he could not find any fault. The hospital was beautifully situated,

and the arrangements in connection with the operating table were so perfect that he almost envied the patient (laughter); while it was so clean that they could defy any microbe, however keen it might be, to get a particle of food off it (renewed laughter). Having expressed the pleasure which it afforded him to accept the invitation of the Honorary Medical Officer of the Hospital (Mr. Lockhart Stephens), who was an old pupil of his at Guy's Hospital, Sir Samuel declared the Cottage Hospital open.

A hearty vote of thanks to Sir Samuel, moved by the Deputy Judge Advocate of the Fleet (Mr. G. P. Martin), and seconded by Dr. James F. Goodhart, physician to Guy's Hospital, was supplemented by the presentation to him, by Mr. L. Stephens, of a *facsimile*, in gold, of the Hospital key, as a memento of the occasion.

Reviews.

Materia Medica, Pharmacy, Pharmacology, and Therapeutics. By W. Hale White, M.D., F.R.C.P. Third Edition. (London: J. & A. Churchill, 7, Great Marlborough Street.) 1889. Price, 7s. 6d.

This work is so well known at Guy's, that any description of its general character is not necessary. As a text-book for the student it undoubtedly stands at the head of the list on account of the excellent arrangement of the matter and the character of the information given.

The third edition has been brought in accordance with the British Pharmacopœia, 1898. The alterations in this respect are very numerous—amounting to several hundreds. A description of diphtheria, streptococcus and tetanus antitoxins, antivenomous serum, and hydrophobia antidote is given at the end of the book.

This edition has evidently been most carefully revised, for it is remarkably free from errors. We only notice one matter which has not been brought up to date—the composition of ipecacuanha root. It is now known that the alkaloidal constituents of ipecacuanha are composed of nearly 70 per cent. of emetine and about 30 per cent. of cephäeline with a small quantity of a third crystallised alkaloid.

Mechanical Practice in Dentistry. By William Booth Pearsall, Fellow of the Royal College of Surgeons in Ireland; Fellow of the Royal Academy in Ireland; Honorary Member of the Royal Hibernian Academy of Painting, Sculpture, and Architecture. (London: Claudius Ash & Sons, Limited, 5, 6, 7, 8 & 9, Broad Street, Golden Square, W.; and New York: 30, East Fourteenth Street.) 1898.

In reading this book the first impression left upon the mind is that Mr. Pearsall has a good practical knowledge of dental mechanics, and that the opinions given are based upon his own personal experience after many years' practice. In our judgment a practical familiarity is necessary for a writer upon this branch of dentistry, for it is impossible to be a teacher of dental mechanics without a good working knowledge of the subject, and ability above that of the average assistant.

The book is well illustrated, and it may be read with advantage as well as pleasure, for the style is good, and the matter clearly put. The scope of the work is extensive, beginning with plans of workrooms and workbenches, and including impression taking, bites, mounting teeth, making gold plates and bands, vulcanite work, bridge work, crowns and furnaces, and continuous gum work.

The author considers the workroom should be on the same level as the operating room—very desirable, if it can be obtained—and that the height of the workbench should be 41 inches (instead of the usual height, 30 inches), so that the mechanic may either sit or stand at his work. A good arrangement of the workroom and the tools is very important for the sake of order and facility of work, hence are figured the plans, drawn to scale, of fourteen different workrooms, including the author's, and also a plan of workbenches for a dental school. The study of the details of these plans is especially valuable to a dental surgeon beginning practice, or to one removing into another house.

The author rightly urges the necessity for a more artistic arrangement of artificial teeth than is generally seen, and he recommends practitioners to study the works of good painters, so that the natural expression of the patient may be preserved as far as possible. Undoubtedly a lack of artistic setting does exist, and it is well in dentures to deviate from the hard and fast arrangement of the teeth too often adopted by mechanics.

We are pleased to note that "crown composition" for taking impressions of the mouth is preferred by the author to other preparations, for it coincides with our own experience after many years' trial of different materials. The formula given for crown composition is Stearine two parts, Olive Oil one part, Gum Kowrie four parts, French Chalk eight parts.

Some good practical advice is given in regard to making and fixing fastenings to dentures: *sic*—"Fastenings should fit the tooth, or teeth, accurately, and the tensile strain on the teeth should be towards the central line at the frenum. If this rule be neglected, there is considerable discomfort imposed upon the healthy teeth should they be thrust backwards, whereas if the pressure be forwards a similar amount of strain does not cause discomfort. Fastenings should be made of elastic or spring gold, not thicker than is suitable to the case. Strong pressure should not be placed on the neck of a tooth, or the *gum* surrounding it. Whenever possible, fastenings should grasp a tooth where there is some enamel substance."

Dr. Peck's loop punch, figured on page 162, is new to us. It is used for making loops on metal plates for the attachment of vulcanite, and it appears to be a great improvement upon the old plan of soldering tags of gold.

We fully endorse the author's opinion as to the edges or rims of vulcanite dentures being made far too frequently "feather-edge," instead of being well rounded

and thick. The latter edges give the frame a better appearance, and they do not cause any discomfort to the patient, whereas the knife-like rims frequently give rise to much pain and deeply-seated ulceration.

In speaking of repairs, it is pointed out that an immense amount of trouble and delay would be saved if the mechanic in the construction of a metal plate confined his method to one process. This important consideration is often overlooked, and, as the author says, it takes many hours to repair a crack in a gold frame with vulcanite attached, and vulcanite bands; and not only that, but the patient usually does not appreciate the difficulty, and not infrequently seems to think the work can be executed in a more simple and expeditious manner.

There are many hints given upon removable bridge work, and the indebtedness of the profession to Mr. J. H. Gartrell, of Plymouth, for the invention of this method, is fully appreciated and acknowledged.

Separate chapters are devoted to fixed bridge work, crowns and furnaces, continuous gum work, and cleft palate. All of these subjects are dealt with in some detail, and from the same practical standpoint that is observable throughout the book.

It appears to us that the appendix partakes too much of the nature of the trade catalogue of a dental depôt, and personally we should prefer that all special tools and apparatus should be figured in the body of the book only; in fact, many of the illustrations are simply reproduced in the appendix.

Aids to Examinations. Part II. By T. Reuell Atkinson, M.D., Dunelm. (London: Baillière, Tindal & Cox). 2s. 6d.

This little book, arranged in the catechism manner, somewhat resembling the "Pocket Gray" in size and contents, purports, in the words of the author, to be *an aide mémoire* in surgery and medicine, etc., for examination purposes. We doubt very much if cram books of this sort are of any worth, and in this particular case the hopeless lack of arrangement displayed destroys what little value the book might otherwise have.

Outlines of the Diseases of Women. By John Phillips, M.D., F.R.C.P. Second edition. (C. Griffin & Co.)

The book has been revised and brought up to date. Sections on kraurosis, on deciduoma malignum, and on the advisability of making a local examination have been added. The amount of information that the author has managed to compress into this small volume is wonderful. Those who can take their mental food in a concentrated, ox-in-a-teacup form should certainly possess it.

Inflammation of the Bladder and Urinary Fever. By C. W. Mansell Moullin, M.D. Oxon, F.R.C.S. (Lewis.) 5s.

The book before us gives a clear and not too lengthy account of cystitis, based chiefly on the bacteriological investigations of recent years. The author shows that cystitis is always suppurative, and that there is no cystitis, at any rate, clinically, without micro-organisms. In the great majority of cases it is the colon bacillus that causes cystitis, occasionally the pyogenic cocci or the tubercle bacillus. But a predisposing cause such as congestion of the mucosa, or loss of nerve function, or retention is necessary as well as the actual presence of micro-organisms in the bladder, since pyogenic organisms injected into a healthy bladder rapidly disappear without causing inflammation. Mr. Moullin rejects the "shock" theory of urinary fever, pointing out especially that, unlike shock which follows an operation at once, it only comes on some time after the passing of the catheter. He believes that in all cases it has a bacterial origin.

It is impossible to follow the author into the details of treatment; suffice it to say that he is a determined persecutor of the race of bacteria, who would take and burn or boil them alive wherever found apart from a patient, and would oust them from their citadel in the bladder by flood, poison or starvation.

Of course, in writing a work on cystitis there is little scope for originality, except in detail. The merit of the book is that it is clear, modern, consistent, brief, and that the treatment it advocates, whether preventive or curative, is based on a red-hot belief in the importance of bacteria in surgical pathology. W. S. H.

Masters of Medicine. William Stokes. By his son, Sir William Stokes. (London: Fisher Unwin, 1898).

This is an exasperating book, because spots and patches of excellence suggest how excellent the whole might be —and isn't.

Since we must grumble let us get the grumble over. This author splashes superlatives, but he can not hit a nail on the head. He makes talk of the "exalted standard of professional honour," "rare erudition," "exceptional powers of accurate observation," "matchless conversationalist," "unrivalled story-teller," "delightful and interesting companion." But nothing that he writes is incisive, nothing picturesque, nothing sympathetic. The book is too much a catalogue of virtues, too little a record of a life. Perhaps it is because he partly realises what poor stuff he is writing that the author bids for popularity by lugging in a funny story regularly at the end of each chapter, and the stories are certainly funny, but not in the least about Dr. Stokes.

So now, after we have grumbled, it is a more pleasant duty to quote something of what is good in the book, and what is good is simply and entirely whatever there is of Dr. Stokes himself. To begin with, the drawing of him at p. 122 (the frontispiece shows only a lump of stupid marble), presents a face of intelligence, as one might expect, but further, of such refinement and sympathy as men worship at sight.

After this introduction to the man, here are some lines on the status of medicine from a speech to the British Medical Association.

"The man among us, who, by his unselfish labour, adds one useful fact to the storehouse of medical knowledge, does more to advance its material interests than if he had spent a life in the pursuit of medical politics. Far be it for me to say that there are not great wrongs to be redressed. It is impossible, in any country, that evils of custom and administration, private wrongs, corporate shortcomings, hard dealings, unfair competition, and scanty remuneration for public and private services should not occur. But these evils being admitted, how are they to be lessened, if not removed? Is it by public agitation and remonstrance addressed to deaf or unwilling ears? Is it by demands for class legislation, or is it by the efforts of one and all, to place medicine in the hierarchy of sciences—in the vanguard of human progress; eliminating every influence that can lower it, every day more and more developing the professional principle, while we foster all things that relate to its moral, literary, and scientific character? When this becomes our rule of action, then begins the real reform of all these things at which we fret and chafe. Then will medicine have its due weight in the councils of the country."

Here are some clinical observations on the cardiac sounds:—

"We read that a murmur with the first sound, under certain circumstances, indicates lesion of the mitral valves. And again, that a murmur with the second sound has this or that value. All this may be very true, but is it always easy to determine which of the sounds is the first, and which is the second? Every candid observer must answer this question in the negative. In certain cases of weakened hearts acting rapidly and irregularly, it is often scarcely possible to determine the point. Again, even where the pulsations of the heart are not much increased in rapidity, it sometimes, when a loud murmur exists, becomes difficult to say with which sound the murmur is associated. The murmur may mask not only the sound with which it is properly synchronous, but also that with which it has no connection, so that in some cases even of regularly acting hearts with a distinct systolic impulse, and the back stroke with the second sound, nothing is to be heard but one loud murmur.

"So great is the difficuty in some cases that we cannot resist altering our opinions from day to day as to which is the first and which is the second sound."

The passage which follows this is equally fine and straightforward, more especially when you consider that Mr. Stokes was one of the first men in this country to use the stethoscope—but space forbids.

Here from a private letter is a bit of criticism which is short and rather to the point.

"The shortcomings of the more modern school of so-called scientific medicine in the advance of chemistry and microscopic anatomy, are that its followers have become very vain, and in seeking to explain the laws of disease, dwell more on the physical than on the vital state, on the dead rather than the living organism. They thus neglect or ignore the grand old records of medicine, and of surgery also, which belong to times when the microscope or animal chemistry were hardly known."

A good many of the descriptive letters quoted in the book are quite commonplace, but this description of Dryburgh Abbey in spring, has music as well as colour.

"Dryburgh Abbey, where Scott lies buried, is so embowered with trees that you do not see it till you are at its walls. Trees around, and trees within, and the sun shining on its lovely fragments of sculptured arches, walls and windows, with the air clear as diamond and soft as gossamer; the wild cherries one wilderness of blossom, the wild flowers blooming over every carving and mullion in crowns of gold, the thrushes singing, and the murmur of the Tweed heard as a silver accompaniment."

And in another place he says of the trees that "they seemed to move and dance in the colour and light of heaven."

In a private letter to his wife is this:—

"My profession is on the whole not a depressing one to most men, nor does it in its ordinary routine depress me. But when a death of importance happens, and that some busy devil within you whispers that had you done something else the result would have been different, and when such an idea from your own weakness becomes fixed, then there is a misery produced which corrodes one's very vitals. * * * * * In many such instances the feeling is a mistaken one, for we fret for not having done that of which we had no knowledge we ought to have done, and if we do our best, why should we be dissatisfied? But still the feeling is irresistible, and comes over one like a winter cloud. This and the seeing those we love in sickness are the great miseries of the profession of medicine."

And in the same letter he says most loveably of himself that his mind is "too sensitive and never well regulated, with attachments painfully strong to the perishable, and without clear or active tendencies to the imperishable."

If there were more of such passages and less of profuse laudatory rhetoric what an excellent book the book would be. F. O. S.

Ambroise Paré and his Times, 1510–1590. By Stephen Paget. Illustrated. (G. P. Putnam's Sons. Pp. 304).

To those who have been fortunate enough to have read the life of John Hunter, by Mr. Stephen Paget, no recommendation of this volume will be needed. The author displays the same charm of narrative and love of sturdy character, and the reader will not have dipped far into the pages before he is imbued with the same spirit, sympathising with the difficulties and enjoying the triumphs of this prince of practitioners.

Ambroise Paré possessed those qualities which make the true medical man, "tender with the sick, honourable to men of his profession, wise in his predictions, not covetous or extortionate."

The 16th century was a time of intrigue, corruption, and cruelty, yet Paré, though a familiar figure at court—he was surgeon to four kings—lived his fourscore years

with his hand against no man and no man's against him. We take no note in this connection of controversies with his detractors over methods of practice, and between barber-surgeons, surgeons, and physicians over rights of practice, for such seem to have been among the legitimate professional duties or pastimes of that day. To most of us Paré is known as the deliverer of mankind from two barbarous procedures, the use of the cautery after amputations, and the pouring of boiling oil into gunshot wounds. His wide experience, gathered from three years' house-surgeoncy at the Hotel Dieu, a Paris practice, and from all the French wars of the time, enabled him to come to sound conclusions on these and other matters. "For I did not learn them in my study, or by hearing for many years the lectures of physicians." The "Journeys in Diverse Places" are fascinating reading. Here is his account of the case of M. le Marquis d'Auret:

"I found him in a high fever, his eyes deep sunken, with a moribund and yellowish face, his tongue dry and parched, and the whole body much wasted and lean, the voice very low, as of a man very near death, and I found his thigh much inflamed, suppurating and ulcerated, discharging a greenish and very offensive sanies. I probed it with a silver probe, wherewith I found a large cavity in the middle of the thigh and others round the knee, sanious and cuniculate, also several scales of bone, some loose, others not. The leg was greatly swelled and imbued with a pituitous humour . . . . and bent and drawn back. There was a large bedsore; he could rest neither day nor night, and had no appetite to eat, but very thirsty. I was told he often fell into a faintness of the heart, and sometimes as in epilepsy: and often he felt sick, with such trembling he could not carry his hand to his mouth. Seeing and considering all these great complications, and the vital powers thus broken down, truly I was very sorry I had come to him, because it seemed to me there was little hope he would escape death. All the same, to give him courage and good hope, I told him I would soon set him on his legs, by the grace of God, and the help of his physicians and surgeons . . . . After dinner we began our consultation, all the physicians and surgeons together, in the presence of M. le Duc d'Ascot and some gentlemen who were with him. I began to say to the surgeons that I was astonished they had not made incisions in M. le Marquis's thigh, seeing that it was all suppurating, and the thick matter in it very fœtid and offensive, showing it had long been pent up there, and that I had found with the probe caries of the bone and scales of bone which were already loose. They answered me, never would he consent to it; indeed, it was near two months since they had been able to get leave to put clean sheets on his bed, and one scarce dared touch the coverlet, so great was his pain. Then I said, 'To heal him we must touch something else than the coverlet of his bed.' Each said what he thought of the malady of the patient, and in conclusion they all held it hopeless. I told them there was still some hope, because he was young, and God and Nature sometimes do things which seem to physicians and surgeons impossible." A discourse on the case follows here, which "was well approved by the physicians and surgeons. The consultation ended, we went back to the patient, and I made three openings in his thigh. . . . . Two or three hours later I got a bed made near his old one, with fair white sheets upon it, then a strong man put him in it, and he was thankful to be taken out of his foul, stinking bed. Soon after he asked to sleep, which he did near four hours, and everybody in the house began to feel happy, and especially M. le Duc d'Ascot, his brother.

"The following days I made injections into the depth and cavities of the ulcers of Ægyptiacum dissolved sometimes in eau-de-vie, other times in wine . . . . and applied compresses to the bottom of the sinuous tracks . . . . and hollow leaden tents, that the sanies might have a way out; and all that we agreed in consultation was done in due time and order, and so soon as his pains and fever ceased he began steadily to amend. . . . . Then when I saw him beginning to be well, I told him he must have viols and violins, and a buffoon to make him laugh, which he did."

There was no organized medical service in those days. Paré went to the wars attached to various nobles, and having performed his duty towards them and their friends, found ample occupation among the crowds of humbler sufferers. He was smuggled into Metz in 1552, sent by the king in response to the request of the besieged, among whom were seven princes. "Wherefore M. de Guise and MM. the Princes, went so far as to beg the king that if it were possible I should be sent to them with a supply of drugs, and they believed their drugs were poisoned, seeing that few of their wounded escaped. My belief is that there was no poison, but the severe cutlass and arquebus wounds, and the extreme cold, were the cause why so many died."

The account of the siege is delightful, and we recommend it as everybody's reading, with the rest of the book. Paré was a soldier every inch of him, and gives a spirited description of the defence of the town. How the Emperor finally "restrained his fury, saying he could not enter the town save with vast carnage . . . and they would all be dead together, and in the end would get nothing, but ashes." How Ambroise only left Metz to be besieged the next year at Hesdin, this time being made a prisoner of war; how he got home again and was ploughed in the examination the next year for the degree of Batchelor in Surgery, then let through, and the next week was admitted to the Licentiateship, "since the king wished it," must be left to the reader to enjoy first hand, together with much else that is interesting.

The likeness between Paré and Hunter is often marked. They both were deficient in education. Paré never learned Latin, yet he read a Latin thesis on receiving his Master's degree. "We know, says Mr. Paget, "neither the subject nor the author of it." Both were observers and dealers in facts, and both were blunt in

controversy. Writes Paré to Gownuelen, "See now, mon petit Maistre, my answer to your calumnies; and I pray you to revise and correct your book so soon as you can, not to keep young surgeons in error by reading therein, where you teach them to use hot irons after the amputation of limbs to staunch the blood, seeing there is another way not so cruel and more sure and easy. Moreover, if after some Assault on a City . . . You should use hot Irons, you would need a Furnace . . . and the soldiers would have you in such horror for your cruelty, they would kill you like a calf."

Finally, in his eightieth year, with his beloved poor of Paris lying dying and dead around him he rebuked in the street the Archbishops of Lyons, the enemy of peace and of the Huguenots, in noble words worthy to stand at the end of such a life:—

"Do you not see that all Paris is dying, because of the villains who wish to prevent peace, which is the special work of God? Set your whole strength against them, Monsieur; take in hand the cause of this poor afflicted people, and God will bless you and repay you."

The book is well got up and enriched with many quaint and interesting illustrations, including two portraits of the great surgeon. E. I. S.

Sir Benjamin Collins Brodie. By Timothy Holmes. M.A., F.R.C.S. (Masters of Medicine Series. T. Fisher Unwin.) 3s. 6d.

We recommend "all very nervous people" to peruse this volume, as it is calculated to dispel any lingering feeling as to the vexatious properties of the author which may be associated in some minds with the tendons, etc., at the back of the ankle. The life of Sir Benjamin Brodie was hardly an eventful one, but its scientific interest is great; and the only fault which can be found with this book is that the author, writing more for the general public than for the profession, has touched somewhat too lightly on the technical subjects concerning which the medical student would naturally feel most interested. After all, the fault probably lies with the profession at large, who, at any rate in the publisher's opinion, would not buy the book in sufficiently large numbers to render its publication a financial success. This is much to be regretted, as a series such as this is of immense value to those who are, perhaps, too much occupied with the "latest results" of contemporary science, to learn the hardly less valuable lessons to be gathered from the careful study of the lives of the great men who have made that science what it is.

Perhaps the most interesting chapters are those dealing with Sir Benjamin's metaphysical speculations; an admirable resumé of which is given at the end of the book. This view of mind seems to coincide to a certain extent with that of the late Dr. Moxon: "The fact is," says the latter in Pilocereus Senilis, "the brain is a sort of Æolian instrument of many strings where upon the several organs play." Compare with this Mr. Holmes' summary on page 204, in which he says that the "bodily structures are fitted to serve as organs to the mind which are acted on also by the impulses, passions, and sufferings of the soul."

The delightful English in which the book is written is an additional reason for recommending it to medical students, both for the pleasure which is afforded by its perusal and for the valuable lesson in style which may be drawn from its pages. A study of the average "Report" will show that the latter reason should have not less weight than the former. J. M. F. B.

The Students' Handbook of Diseases of the Skin. By *Utile quod facias.* (E. & S. Livingstone.) 2s. 6d. net.

There are two classes of books which we should like to see at least discouraged; the small book on a large subject, and the large book on a small subject. The handbook at present under discussion belongs to the former, and were it not for the modesty of the anonymous author's preface, we should have substituted the word "suppressed" for the "discouraged" which appears above. Were there any who desired to pass a written examination on the subject of skin diseases in which no very high standard was required, the requisite knowledge might possibly be obtained by learning up this little book—a process which anyone accustomed to examining would probably complete in a week. Fortunately, however, most examinations require a clinical knowledge of skins; hence we are forced to the conclusion that the net value of this little book is considerably below its published price. With regard to the actual matter contained in the book, the disclaimer in the preface is amply borne out—it certainly contains no original matter. Perhaps, however, some critics would consider that "gangrœnosum" approaches the unusual if hardly the original. J. M. F. B.

Sport.

Cricket.

REPORT OF THE SEASON, 1898.

The cricket season was brought to a close with our return match against Brentwood on July 16. In one respect—Inter-Hospital Cup—it was a failure, but in every other it was quite as successful as we could wish.

The first team played in all 15 matches, of which 8 were won, 6 lost, and 1 drawn.

Our victories included St. Mark's College, Croydon, St. Mary's, Dunstable, Reigate, Past, Brentwood, and Hornsey.

Losses:—Crystal Palace, Surbiton, Bart's., Reigate, Eastbourne, and Brentwood.

Drawn:—Beckenham.

In the Inter-Hospital Cup ties, after beating Mary's in the first round, we had to put up with defeat at the hands of Bart's, and thus lost the Cup which nearly the same team had won for us last year.

One very pleasing feature particularly noticeable during the season was the keenness of the men, so that not only was there a minimum amount of scratching, but there was always a keen competition among those wishing to play in both first and second teams, so much was this the case that several men could not get a game, and therefore, should this continue next year, we have every prospect of running a third team.

Turning to individuals, Trubshaw easily heads the batting averages with 28·8 for 16 innings. M. C. Wetherell is the only other member of the team to have an average over 20.

Why it is that the batting is so weak it is difficult to say, but excuse can be found in the fact that half the team were up for exams., and were thus unable to practice as much as they would otherwise have done.

The bowling averages are, however, above the usual, and although Trubshaw's works out a decimal point better than Clarke's, the latter's average of 10·8 for 55 wickets is among the best the hospital has recorded. We hope that next season will see the return of the Cup to Guy's, and that the team will not suffer to any great extent the loss of four of its members, even though it means two such cricketers as A. E. Clarke and K. B. Alexander.

BATTING AVERAGES.

	Runs.	Innings.	Times not out.	Most in an innings.	Average.
K. V. Trubshaw	462	16	0	135	28·87
M. C. Wetherell	229	12	3	63	22·9
A. E. Clarke	312	17	1	67	19·5
L. Humphry	267	16	2	71	19·07
G. T. Willan	217	14	2	40*	18·08
F. C. Wetherell	259	17	2	77*	17·26
K. B. Alexander	136	8	0	33	17
A. E. Cawston	137	15	3	47*	11·41
H. Durbridge	154	15	1	39	11
H. P. Wiltshire	73	12	3	17	8·11
E. Cohen	32	4	0	19	8
J. M. Brydone	86	11	0	23	7·81
R. C. Mullins	39	5	1	14	7·8
J. T. Hicks	40	6	0	36	6·66
T. E. Holmes	34	9	2	13	4·85
R. Willan	12	4	0	9	3

* Not out.

BOWLING AVERAGES.

	Runs.	Wickets.	Average.
K. V. Trubshaw	275	26	10·60
A. E. Clarke	597	55	10·87
F. C. Wetherell	323	28	11·53
H. P. Wiltshire	435	26	16·73

Also bowled—M. C. Wetherell, 157 for 3, G. T. Willan, 48–3, E. G. Goddard, 59–2, R. C. Mullins, 19–1, K. B. Alexander, 54–0, C. M. Cowper, 41–1.

Guy's Hospital Lawn Tennis Club.

GUY'S v. ALBEMARLE.

We met the above-named club for the first time this season on July 20th at Beckenham. As our opponents were rather late in turning up, only two rounds of American doubles were played. Brydon and Willan were playing together very strongly at times. The Hospital won three matches to two. E. L. R. Kelsey and —. Wacher lost to N. G. Alston and H. N. Alston, 6–4, 2–6, 3–6; lost to R. Carr and W. Adams, 5–7, 6–4, 4–6. J. Brydon and G. T. Willan beat R. Carr and W. Adams, 6–3, 4–6, 6–2; beat H. C. Holmes and S. E. Howard, 7–5, 6–1. P. S. Mandy and H. K. Lacey beat H. C. Holmes and S. E. Howard, 6–1, 6–2; drew with N. G. Alston and H. N. Alston, 3–6, 9–7, 5–3.

GUY'S v. HAROLD.

This, the last match of the season, was stopped by rain. The first round was begun, but no matches were finished. The Hospital was represented by P. S. Mandy and H. K. Lacey, E. N. R. Kelsey and H. Wacher, J. M. Brydon and F. G. Cross.

THE CHAMPIONSHIP COMPETITION.

P. S. Mandy, the captain of the club, has won the Lane–Washbourn Cup. Of course it is fitting that it should be so, but it does seem a pity that so large a club as ours should contain no players capable of giving the champion a hard game. Anyone watching the final would have been forced to confess that Mandy was never really hard pressed. Mandy has improved considerably this season, both as regards his strokes and his generalship. Kelsey has also improved wonderfully, but was weak in the net with his overhead strokes. His volleying was excellent.

Second round, concluded.—P. S. Mandy beat A. C. Ransford, w.o. Third round.—E. L. R. Kelsey beat H. K. Lacey, 6–3, 6–4; P. S. Mandy beat M. C. Wetherell, 6–1, 7–5. Final.—P. S. Mandy beat E. L. R. Kelsey, 6–4, 6–3, 7–5.

THE HANDICAP COMPETITION.

This had a disappointing finish. E. L. R. Kelsey should have met E. N. Jupp in the final, but the former failed to put in an appearance, so that Jupp won by a "walk over."

SEMI-FINAL.—E. N. Jupp beat G. T. Willan, 6–1, 7–5. E. L. R. Kelsey beat P. S. Mandy, 8–6, 3–6, 6–3. Final, E. N. Jupp beat E. L. Kelsey, 10–0.

Birth.

CURRIE.—On August 5th, at Edinburgh, the wife of Oswald James Currie, M.B., M.R.C.S., Maritzburg, Natal, of a son.

ED.—H. L. E.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

September.

Wed. 14.—Messrs. Golding-Bird and Dunn's take-in; Drs., W. B. Secretan and R. W. B. Hall; Cl., H. D. Peile.

Wed. 21.—Messrs. Howse and Jacobson's take-in; Drs., F. R. Featherstone and C. B. Thompson; Cl., J. A. Glover.

Wed. 28.—Messrs. Davies-Colley and Symonds' take-in; Drs., J. C. Brockwell and E. W. Goble; Cl., J. M. Fortescue-Brickdale.

Guy's Hospital Gazette,

SEPTEMBER 10, 1898.

On Normal Abnormalities.*

CLINICAL LECTURE BY DR. GOODHART.

GENTLEMEN,—One at least of the pleasures amongst the many worries of a doctor's life is this, that although he never knows much of all the many problems presented to him by disease, yet, as he grows older, he does seem to know a *little* more, and can occasionally speak with a little less stammering tongue. It is this experience that mellows the necessary dogmatism of the class-room and gives the *raison d'être* to what we call clinical lectures. It is this idea that is in my mind to-day in taking the subject that I shall call "Normal Abnormalities."

By this I mean conditions that, although *un*natural, are more or less *natural* to the particular individual, and are not, therefore, to be counted to them as disease.

Take, for example, constipation. By common consent the greater part of civilised man has decided that it is the natural thing to have a daily action of the bowels; and, no doubt, it is a very healthy, if sometimes inconvenient, consensus. But a remnant—a large remnant—are less the creatures of this acquired habit, and then, if they be not well, are liable to think themselves diseased in this special way.

We did not each of us come into the world with a daily action of the bowels cut and dried for us. We may each of us have a tendency that way from inherited habit, but it is a purely conventional matter at starting. I do not say that it is so afterwards, for there can be no doubt that there are some who, without it, are made really ill; but what I want to enforce is, not that it does not matter to the mass of mankind whether the bowels act daily or not, but that it is not a necessity for everyone.

A young lady came to me the other day for constipation. Her movements came only about once a fortnight, and so far as I could determine she seemed in very good health. But she had got the common idea that if she did not manage things better than that she would become blocked up, and perhaps in her case—at the end of a fortnight—there was reason in her anxiety, although I hardly think so. But many a man goes through life the daily drudge of his bowels, lest his morning solicitation should be met by refusal.

I go the round of the country, and am met on one hand by a magnificent church; on another by a beautiful college; on another by a sanatorium; on another, perhaps, by a private palace. And when I ask, Whence come these monuments of wealth? the common rejoinder for them all is, Pills! And I believe this is due to the fact that man has converted what was at the first only a convenience into a very necessity of life. Think a bit about the physiology of the colon before you take to prescribing aperients at random, and observe in the *post-mortem* room, and you will learn some useful lessons. Take only one fact. You never find solid matter in the small intestine, and yet there are

* Reprinted from the August number of the *Practitioner*.

a good many people going about who never prescribe any other food in typhoid fever than milk or liquid food of some sort, because—it is only the reason that I object to—of the fear of perforation. There is no fear of perforation from any food, so far as the mechanical effect of the food goes, for it is always spread in a thin chymy layer over the surface of the intestine, and, as I have said, is *never* solid. But as soon as it enters the cæcum, then at once you come upon scybalous material. From this I argue that the colon is a most important organ for the absorption of food. And it may well be, for instance, that in some cases it is a more greedy feeder than in others, and in that case, therefore, produce little refuse, and constipation may thus be a natural abnormality.

Well, then, there are a goodly number of people, naturally constipated, who are, to begin with, very spare feeders, but who starve themselves for fear of getting a block. Between their natural inclinations and their treatment of themselves they do not eat enough to produce much refuse, and, therefore, they are constipated. But, as I am not lecturing upon constipation only, I must not pursue this section further.

And while I am on the intestine there is another condition which, by a little stretch, may be called a normal abnormality, although it is disease in no one. It is the omega loop—as it has been called, and well called, by Mr. Treves—of the sigmoid flexure.

I have several times known men to be uncomfortable about a lump in the region of the cæcum, which has been, I am sure, no more than a collection of fæcal stuff in this omega loop, lying, as I believe it often does when distended, near the cæcum. My reason for thinking so is that it is a lump that may be found in the early morning, and disappears later in the day after the bowels have acted.

There is another point about this omega loop, too, that I am always glad to have an opportunity of enlarging upon, and that is the difficulty that it offers to the passage of long tubes. Many people talk of the passage of a long tube up the rectum as if in so doing they passed it into the descending colon, and thereby were able to empty the colon. But an idea of this kind shows little familiarity with the *post-mortem* room, for you will find there that it is seldom possible to do anything of the kind. You may pass a tube into the lower third of the loop, but that is all. After that, the tube turns round and comes back again. This is always supposing that you use a soft rubber tube; and the use of any other is, in my opinion, dangerous, if it be passed, or attempted to be passed, for any distance.

There are other conditions of functional character that, like constipation, may be called natural for individuals, although it might be more consonant with their feelings to regard them as abnormalities. Such are insomnia, fatigue, pain of sorts, etc., and how interesting these conditions are if studied in this light. It is quite a frequent thing for people to come complaining of insomnia, and when asked what they mean by the term, I am told that the patient sleeps, perhaps till 5 or 6 a.m., and then is wakeful afterwards; or perhaps it is that, going to bed at 10 or 11 p.m., he wakes at 2 or 3 a.m., and has only disturbed sleep afterwards. Now, there are a great many going about the world with no more sleep than this as their natural quantum, and they are not appreciably the worse for their small allowance. The abnormal is really the normal for them. I constantly impress this fact upon the sleepless. They are not ill because they are sleepless; they are often ill because they magnify the importance of a six- or eight-hour continuous sleep, and worry themselves into the belief that without it the brain softens; but insomnia is present because the nutrition of the nervous centres has sunk low—a more or less normal condition for some.

Fatigue is another "normal abnormality." A large number of people, because they are tired, think there must be something wrong; they are always tired—tired when they get up and tired when they go to bed; they can't take exercise because of this feeling of fatigue. I think that a certain proportion of feeble human beings get into a state in which they are unable to generate enough nervous energy, and I consider it a strictly physiological, although depraved, condition. Such people go from doctor to doctor, and get a tonic here and a tonic there, and still they feel tired. After a time they get tired of doctors, and I think, perhaps, that is the best thing for them under the circumstances.

Again, there are a fair number of people who are always subject to pains and aches which render them miserable; they are "sound people out of health." They are mostly people without much object in life; so far as medicine is concerned, there is not much to be done for them; but give them an occupation and the pains go.

Obesity is another of these conditions; it is certainly an abnormality, and yet is very normal to some people. It is unnatural in this

respect, that if you see a patient very ill and at the same time very stout, you can say that his chances are thereby lessened; patients of this sort don't use their organs properly, and it is often impossible to examine or nurse them properly and altogether they are very likely to go wrong. You will ask me if I can make a fat person thin, and my experience of treatment in these cases would make me answer that you can't. Dieting fat people is the speciality of a certain class of doctors, but I should say that if you take fifty patients and treat them by dieting, in forty-five of them the treatment will do no good, or so little that the game is not worth the candle. The present fashionable plan is to feed them on three or four meals a day, consisting of minced mutton or beef, lemon juice and white of eggs; a little beef-tea may be taken if they are thirsty; besides these, they take four drinks of water, so much at a time, but the water must not be taken at meals. At the bottom of the diet form you will see written, "This diet is only applicable to this patient." It is an excessively irksome form of treatment, and in a large number of cases there is very little reduction of weight; but it does seem to be valuable in a certain proportion of the obese, as well as in special cases of other diseases, of which I would mention rheumatic gout as one. Speak very charily to these people about reducing them to their normal weight; some of them starve themselves voluntarily and yet keep up their weight, So little do some of these people eat that it would almost seem that they live as plants and draw sustenance from the air they breathe.

There is yet another condition that occurs to me that I am almost tempted to speak of it as a normal abnormality, it is so very common; it is a purely functional affection, and the more one sees of it the less harmful it appears to be; it occurs in young people from six or seven years of age up to eighteen, nineteen, or twenty; it is usually recognised as functional albuminuria or paroxysmal albuminuria—we used to think it had about it a suspicion of kidney disease. The albumin comes and goes, sometimes at stated parts of the day, sometimes at intervals of a few days. Sometimes there is very little, at others the test-tube may be half full; or, again, it may disappear in the course of twenty-four hours. This condition continues year after year, and medicine seems to do little good. Tonics are usually prescribed, since these patients are often a flabby sort, although, nevertheless, they maintain a fair standard of health. Dieting has been tried, but it has never seemed to me to give any striking result, and schoolboys are very difficult to diet; in fact, this is a disorder in which I do not advise much treatment. As far as I know, no harm comes to these cases; the condition probably ceases in adult age. It is the opinion of Dr. Penny, at Marlborough, that it is very common and of little importance.

Turning now to more definite structural abnormalities, I will take first of all a condition that is often called dilatation of the stomach, but which is more correctly called proptosis of that organ. There is an idea abroad that the stomach in health is nicely tucked away under the ribs, and that any excessive resonance below them, or succussion, is an indication of some degree of dilatation. But experience teaches that thousands go about with a pond that is demonstrable behind the umbilicus, and yet are healthy. Excessive resonance and succussion are no sufficient evidence of dilatation; they are constantly present after a meal, and often remain for several hours. I have often found these conditions present at about twelve o'clock, when the breakfast has been at eight, and yet without any signs of disease attributable to the stomach. Copious vomiting of brownish-grey vomit at intervals of, perhaps, two or three days, and visible peristalsis, with pain and discomfort, as well as succussion, are much more safe guides; and upon these you may proceed to treat the stomach as dilated, and wash it out, or even take further measures if medical treatment and diet are not successful.

And I think that the usually accepted pathology of dilatation of the stomach has a suspicion about it of a want of recognition of a normal abnormality, for the explanation given is the simple and mechanical one that the pylorus is strictured, and that therefore the stricture has only to be dilated or exercised to cure the patient.

But I do not agree. Go down into the *post-mortem* room and put your finger through every pylorus that comes before you, and you will soon see that the pylorus is a *natural stricture*, and I very much doubt if it or the os uteri has any active dilator of the orifice. I suspect that either only opens in response to pressure behind it. Moreover, there can be no doubt that stricture from healed ulceration is excessively rare, therefore stricture is mostly cancerous; and yet there is a group of cases of dilatation of the stomach that is certainly not due to cancer, for relief follows very markedly upon washing out the stomach, and such cases—and they are not uncommon—live for years.

I consider, therefore, that I am justified in teaching, as I have done now for a long time,

that these cases are not examples of pyloric disease at all, but they are cases of passive dilatation of the stomach from chronic indigestion and defective innervation. The stomach being dilated and the muscular coat impaired in its action, the pylorus—placed, as it is, as a natural obstruction, and with the function of letting nothing pass out until the muscular *vis a tergo* can readily pass it out—now becomes much more of a real obstruction. And the point of this is, that if dietetic treatment and washing out the stomach should fail, as they frequently will, to relieve, then the proper surgical proceeding is not to dilate the pylorus, as has been suggested, but to short-circuit it by uniting the cavity of the stomach and jejunum, and of the success of this plan of treatment I have seen now some five or six striking instances.

Another normal abnormality is movable kidney. You are often seeing these in the wards, and you will, I daresay, often see, at any rate hear of, such cases giving pain and undergoing the operation of nephrorrhaphy, or of stitching the organ up into its place.

Years ago we were meeting occasionally with what were called *phantom tumours* in the abdomen, and movable kidneys were seldom if ever mentioned. Indeed, there was a discussion at the Pathological Society some twenty-five years ago whether there is such a thing as movable kidney, and I collected, from our *post-mortem* records, cases that conclusively proved the point. The position of affairs has so much altered that I think I can say that I have not seen a phantom tumour for years, and movable kidneys are of daily occurrence.

And it is this commonness of occurrence that I am going to lay stress upon. You know that it is a common affection, but I think that you would all say that it is an affection that generally gives pain, and that sooner or later—sooner rather than later—requires an operation. But it is not so. If you extend your experience, as you will some day, you will find that a movable kidney is so exceedingly common as to constitute a natural condition in many women—that it is, in fact, a normal abnormality. I really cannot say how common it is, but examining a string of patients day by day, I should think that hardly a day passes that I do not see one case. You will notice that I say in *women*, for movable kidneys are comparatively seldom found in men. Why this should be is a matter of doubt; there are several conditions that may enter into the explanation of the fact. One is that the dress of women disposes to the displacement of the viscera in the upper part of the abdomen; another, perhaps, the greater laxity of the tissues, and particularly the abdominal parietes, in women who have had families, only that I am not sure that a movable kidney is more common in mothers than in single women. Another may be that they are more the prey of their sensations, and therefore complain more often, and that thus the condition more often comes under notice, and thus seems to be more common, when in reality it is not so.

The characters of a movable kidney do not vary much, but it is as well to recognise what those variations are. In the first place, it is mostly on the right side; by no means exclusively, but still very largely so. In the majority of cases the kidney merely slides down on a deep breath, so that with one hand in the loin and the other pressed deep into the abdomen a smooth, elongated, round-ended swelling is felt to glide between the fingers and glide back again, sometimes with a distinct jerk and sensation of discomfort to the patient. Sometimes the play is so free that the kidney comes down completely between the two hands, and can be fixed there by closing the hands above it so as to separate the organ completely from the other organs. Sometimes, again, the play is still more free, and the organ, when down, can be moved about from one part of the abdomen to another—can be pushed down into the iliac fossa, or pushed over to the median line. Sometimes, even more than this, the organ possesses a sort of mesonephron apparently, and is thus allowed so much play that it comes forward quite superficially under the abdominal wall, and it is this variety, I believe, that has formed the chief of the so-called phantom tumours; for sometimes the kidney may appear *between* the coils of intestine, when it is easily palpable, and sometimes behind them, when it may or may not be, and thus it comes and goes in a most perplexing manner. Then, moreover, some of these cases are hydronephrotic as well, and intermittingly so.

A very interesting case of this sort was in Guy's last year, or the year before. When I was taken to it first I was told that it was a movable kidney, but as I felt it I said, "I think this is bowel and not kidney." It was a soft, doughy sort of lump, between the intestinal coils on the left side. But when I saw it a second time it had completely altered; and now I had no doubt that it was a kidney, for it was now a tense, rounded lump, that was quite unlike any mass in the bowel or mesentery. And while I was manipulating it, it suddenly altered in resistance, and in a second or two it became much smaller and almost disappeared,

so that there was proof of the nature of the lump.

The fluid re-collected again afterwards, and Mr. Lane therefore cut down upon the kidney, found that the hydronephrosis appeared to depend upon the relation of the ureter to some abnormal artery, and by liberating the ureter he hoped to cure the patient.

Movable kidney is an exceedingly common affection. In a very large number of instances the subject of it is quite unaware of its existence, so that it is a very good case in point of normal abnormalities. Do not direct attention to it. In the few it is painful, and is sometimes the cause of intolerable worry, or leads to hydronephrosis, etc., when it will need to be dealt with. In the great proportion of cases it is to be left severely alone.

It is not always easy to be sure of the nature of these tumours, and one—not so very uncommon—difficulty has seemed to me to be to distinguish between kidney and liver or gall-bladder. Some of the more movable kidneys come to the surface, and are then very like a gall-bladder; and, again, some are adherent under the liver, and the liver comes down over it, and it is almost impossible to say which organ of the two is chiefly in fault. I remember a woman in Guy's Hospital whose tumour I thought was liver, and Mr. Symonds thought was kidney. She was very ill, and it was necessary to explore, as in whichever organ it was, an abscess was probable. It turned out to be the kidney, with a thin layer of liver over it.

This leads me on to another "normal abnormality" which is, in a sense, normal—at any rate, to certain individuals, though I acknowledge that it inclines more to the side of disease: I mean enlargement of the right lobe of the liver. This is a condition which is not very uncommon, and yet one that is easily mistaken. I was once called down into the country to see a lady who was supposed to have a cancer of the liver, and when I arrived there I found her strong, sitting up in bed, and evidently, to quote a popular phrase, "doing herself well." On examination, I found a large tumour on the right side of her abdomen, which felt doughy and elastic, not at all like the hard surface of cancer; and I at once had no doubt that it was a case of what I will call simple enlargement of the right lobe of the liver, and not of cancer. Only last week, again, I was called to see another case, partly for the reason that there was a lump in the abdomen that the doctor could not make out; it was the same thing again—a doughy mass, dull on percussion, and spreading down into the abdomen from the liver. I remember some five or six years ago, reading an account of a case in one of the medical journals, in which one of our celebrated surgeons was operating on an abdominal tumour, and was surprised to find that it consisted of healthy liver substance, and I remember that the stitching the organ up again in its right place was deemed a very successful operation, and so, no doubt, it was. But I am inclined to suspect that the "drag" had never been applied here—I always call the physician the drag—and that if it had been, no operation would have been necessary. Every now and then you may get, not an enlargement, but a mere displacement of the viscus. This condition occurs in women, not in men; at least, I cannot recall a case in a man. It is most likely to occur in an old bronchitic whose chest is full of lung, and thus the liver is displaced by the pressure from above; the habit of tight-lacing is often cited as a cause, and no doubt correctly, but I think it is not always that. It seems to me that the way women append their garments to their waists must have a constant dragging effect, independently of tight lacing, and must tend to displace the liver downwards; and it is not uncommon to see *post-mortem* that well-known milky line running right and left across the middle of the right lobe and separating it into two parts which indicates this line of pressure. The amount of constriction produced by this pressure prevents the free circulation of the blood, and this, acting for a long time, leads to chronic venous congestion, and thus the part beyond the line becomes a great bulbous lobe, and may be as big as the rest of the liver above the line.

In the same way the heart and lungs, when diseased, may produce a certain amount of congestion of the liver and thus some show of hypertrophy; and chronic alcoholism in the same way lead to a certain amount of turgescence of the liver short of cirrhosis, and thus to the presence of a lump that may be felt.

To pass to another region, another abnormality, is the condition you all know as adenoids. Personally I am not fond of the term; it suggests some form of growth, and I think that it is not usually so. I look on it as a chronic hypertrophy of the mucous membrane round the posterior nares. In one specimen in the museum the mucous membrane is seen in a thickened condition, and takes the form of folds rather than of a polypoid condition. I do not know what proportion of children have adenoids;

statistics are needed on this point. But before we take to treating all cases of adenoids as disease we ought to know, taking, say, a thousand presumably healthy children, in how many of them adenoids are present. I am prepared to affirm that they are often present without any symptoms of their presence.

You, of course, all know this condition as a cause of disease, but often it is present without giving rise to disease at all; in this case let it alone. I will give you the points which should determine you whether to operate or not.

(1) *Earache*—which is a frequent symptom. Still more should you operate if there is a discharge from the ear.

(2) *Deafness*—a still more important reason for operating. It usually starts by the child taking cold; the inflammation of the throat spreads up the Eustachian tubes, and the child becomes temporally deaf. Should these attacks be frequent, the tube becomes permanently thick and closed and the child deaf; therefore in such cases you must operate. Deafness also results from the exuberance of the thickening around the orifices of the Eustachian tubes, without any evident inflammation; so that in any case of impaired hearing in a child, search for adenoids, and if present remove them. This deafness often goes with a stupid appearance and an open mouth.

(3) *Enlargement of the glands*—If such a condition of things goes on persistently, look at the posterior nares. It is often dependent on adenoids, and subsides after their removal.

(4) You must consider the *development of the child's chest*. If there is a tendency for the child to become pigeon-chested, and if the child snores at night, always examine the posterior nares. Removal of adenoids will do a good deal to preserve the shape of the chest and to help the development of the child.

(5) In *asthmatic* children examine the posterior nares, even if there are no symptoms of adenoids; and if you find them present, be on the safe side and have them removed. The asthmatic condition becomes stereotyped during childhood, and if anything is to be done in the way of treatment, it is to be done during early life.

These five are the symptoms that guide me as to the question of operation, and I think they may very fairly guide you. But you will find that very different ideas are abroad. A mother will come to you and say that she thinks her child has adenoids, and will ask you whether they had not better be removed; in a fair proportion of such cases there are no symptoms whatever. Just at the present there is a craze for adenoids. The mothers have an idea—bred, I am afraid I must acknowledge, by doctors—that the mere presence of adenoids will produce idiocy and dwarfing. I believe that this idea has arisen by a blending in the mothers' minds of two diseases—viz., adenoids and goître. At any rate, it is feared that the mere presence of these "glands" is sufficient to stop development. Of course this is not so. It is the deaf children only that become stupid. The presence of adenoids may interfere with the development of the chest. Don't let yourself be hurried into an operation because the mother says that a child has adenoids.

There is a certain amount of humour in a note I received from an old Guy's man the other day. He writes: "In olden days progress was dependent on the presence of ability; now it seems to depend on the absence of adenoids." And that does appear to be the popular opinion just now; if only you haven't got adenoids you are all right. My own idea is that this condition is really an exuberant mucous membrane encouraged by faulty breathing through the nose. In infancy this does not help us much, for you cannot teach the child to breathe properly; but if sufficiently old, you may teach it to do so, and may thus do a good deal to reduce this mucous hypertrophy, and thus get rid of the dangers attendant upon its presence. If the nose is not used in breathing, the mucous membrane becomes thickened and the glands enlarged, and very possibly an excess of mucus is secreted.

On general principles you can say that, if the child breathes comfortably through the nose with its mouth shut, there is no condition present likely to be harmful. It occasionally happens that a tuft of granulation exists at the orifice of the Eustachian tube and so leads to ear troubles; but the deafness or discharge would in that case be your guard and guide. Mr. Lane makes the child lie on its back and breathe through its nose as a regular daily exercise. If the children are looked after and the instructions carried out, this treatment will do a great deal towards restoring the mucous membrane to a healthy condition. Please don't misunderstand me and say that Dr. Goodhart never advises operation on adenoids. No one, I think, sends patients to be operated on more often than I do. I believe the operation is doing much to prevent deafness and also that form of tuberculosis that is secondary to enlargement of the glands, as well as pulmonary conditions such as asthma and bronchiectasis;

but I don't think that the presence of adenoids justifies a panic, nor the mere suggestion of their presence an operation.

You must remember that, after the vigorous scrapings to which these cases are subjected there cannot be much mucous membrane left behind, and that patients may come to you afterwards complaining of "dry throat"—one of the most troublesome little ailments you can have to deal with. The patient always feels throaty, and may be troubled by coughing, sneezing, and so on, and life may be rendered a misery to him.

Any number of additional examples of normal abnormalities might be given. I have taken those that came first into my mind. But I care not where you look: examine the fundus oculi in as many cases as you can, for one of your chief difficulties in practice in that quarter will be that you are not sure whether a particular appearance that you see is the result of disease or within the range of the patient's normal. Take the rectum in the same way. You cannot have too many at your fingers' end, for the question is constantly cropping up in the earlier phases of disease, Is this normal or early disease? And so it is for any part that we cite. Indeed, this is where experience tells; this is where general practice so often scores a success, for you can know your patients. I can seldom know mine.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

CASES UNDER DR. TAYLOR.

STEPHEN
1. Inf. endocarditis.
2. Appendicitis.
3. Cirrhosis of liver.
4. Diarrhœa and vomiting.
5. Phthisis. Lardaceous disease.
6. Mitral disease.
7. Empyæma. Operation.
8. Inf. endocarditis.
10. Chorea.
11. Urticaria. ? Gastritis.
14. Phthisis. Hæmoptysis.
17. Renal calculus. Operation.
18. Cirrhosis of liver.
20. Diabetes mellitus.

MARY
40. Tonsillitis.
42. Acute rheumatism. Mitral disease.
43. Distended abdomen. ? Malignant disease.
44. Enteric fever. Relapse.
46. Mitral disease. Pericarditis.
47. Epistaxis. ? Hæmophilia.
48. Phthisis.
50. Malignant disease of bladder.

CASES UNDER DR. HALE WHITE.

STEPHEN
21. Phthisis.
22. Leprosy.
23. Cirrhosis of liver. Ascites.
25. Bronchitis. Pleuritic effusion.
26. Syphilis. Lardaceous disease. ? Cirrhosis.
27. Acute tubal nephritis.
31. Appendicitis.
32. Lupus verrucosum.
33. Gout. Lead. Granular kidneys. Hypertrophied and dilated heart. Relative mitral stenosis and regurgitation.
34. Mitral regurgitation. Enlarged liver.
35. Alcoholic heart.
36. ? Pernicious anæmia.

MARY
1. Chorea, æt. 25.
4. Gall-stones. Right moveable kidney.
6. Perityphlitis, second attack, æt. 3.
7. Infantile paralysis.
8. Diabetes insipidus.
9. Chronic Bright. Cerebral hæmorrhage. ? Cystic kidney.
10. Hæmatemesis five months after successful operation for perforated gastric ulcer.
11. Gall-stones. Portal pyæmia. Effusion into joints.
12. Chronic Bright.

CASES UNDER DR. PITT.

PHILIP
21. Congenital heart disease.
23. Mitral stenosis and regurgitation. Aortic regurgitation and stenosis.
24. Phthisis.
25. Paraplegia. Angular curvature.
27. Enlarged liver. ? Carcinoma.
28. Mediastinal growth.
29. Post-diphtheritic paralysis.
30. Mitral stenosis and regurgitation. Tricuspid regurgitation.
31. Typhoid.
33. Carcinoma of stomach.
35. Mitral regurgitation. Acute pericarditis.
36. Myelitis.

MARY
25. Mitral regurgitation. ? Mitral stenosis. ? Tricuspid regurgitation.
26. Acute nephritis.
27. Rheumatism.
30. Chlorosis.

MARY 32. Chronic peritonitis.
33. Mitral regurgitation and stenosis. Tricuspid regurgitation.
34. Phthisis.
35. Eczema.
36. Anæmia. Rough localized systolic bruit.
37. Mitral stenosis and regurgitation.

CASES UNDER DR. BRYANT.

PHILIP 1. Phthisis, Lardaceous disease. Jacksonian epilepsy.
2. Phthisis. Aortic regurgitation.
3. Mitral disease.
6. Infective endocarditis.
8. Growth in ascending colon. Colotomy.
9. Chronic tubal nephritis. Dilating heart.
11. Myelitis.
14. Bronchiectasis.
15. Double pneumonia. Death.
16. Hæmoptysis. Phthisis. Right apex.
17. ? Insolation.
19. Pericarditis. Interstitial nephritis.
20. ? Lead neuritis

MARY 12. Exophthalmic goitre.
15. ? Insolation.
19. Growth at hepatic flexure. Right colotomy.
20. Gastric ulcer.
22. Chronic pleurisy. Enlarged right kidney. ? Tubercular.
23. Hysteria.
24. Cardiac failure.

"Clinical."

JOHN 1. Diaphragmatic pleurisy.
4. Periproctal abscess.
7. Pseudo-angina pectoris.
8. Phthisis.
11. Plumbism. Granular kidney.
12. Diabetes mellitus.
13. Appendicular colic.
14. Empyæma.
15. Malignant disease of right lung.
16. Phosphorus poisoning.

MIRIAM 17. Cerebral hæmorrhage.
21. Phthisis.
22. Acute rheumatism.
23. Peritoneal cysts.
25. Malignant disease of the ovaries.
26. Chronic intestinal obstruction.
27. Lobar pneumonia.
29. Tabes mesenterica.
32. Broncho-pneumonia.

Cot 33. Diphtheria. Tracheotomy.
34. Marasmus.
35. Broncho-pneumonia.
36. Diarrhœa and vomiting.

Case for Diagnosis.

A. W., æt. 23, a baker. Was admitted on August 26th for abdominal pain. He had always enjoyed the best of health. Since birth he had had a lump in the right inguinal region for which he had worn a truss.

While at work on August 22nd he was seized with fairly acute general abdominal pain. He went to bed and was so much better the next day that he returned to his work. The pain returned, however, but was much more intense, and while it affected the whole abdomen, was felt most acutely across the epigastric region. This time he had to be carried to bed, and then had an attack of shivering, and vomited some medicine which was given him. During the next three days he remained in bed still suffering from the abdominal pain which was not so great as at the first onset, and sometimes left him entirely for hours together. It was always aggravated by movement and was never griping in character. He was greatly troubled with flatulence, and for the four days preceding admission he passed neither fæces nor flatus per rectum. He was not sick from the beginning of his illness till the night of the 25th when he vomited almost every hour. This symptom passed away completely before his admission.

On admission, on the 26th, his colour was good and his expression placid. He lay on his back with his legs extended. He had some abdominal pain, but not much, and he complained of neither thirst nor sickness. His tongue was covered with a thin white fur. His abdomen was moderately and uniformly distended; it moved very little with respiration, and was somewhat rigid all over. There was some tenderness on pressure over the whole surface, and this was rather more marked on the right side. On percussion, the whole abdomen yielded a tympanitic note which encroached on the liver dulness below the ribs for about 1½ inch. The rectum contained fæces. In the right inguinal region was a small tumour. It was irreducible, and felt like a solid organ covered by a softer material. The right testicle was absent from the scrotum.

The patient's temperature was 100·4°. His pulse rate was 84. It was compressible but of normal force and size.

An operation on the inguinal tumour was decided on.

(*For result see page* 388.)

Papers by Guy's Men.

Notes on a Case of Angina Ludovici: Operation; Recovery. By Arthur E. Philipps, L.R.C.P. Lond., M.R.C.S.—*Lancet*, 13th August.

The Operation of Gastrostomy performed by the Koder-Senn Method, with Two Cases Successfully so Treated. By A. Ernest Maylard, M.B., B.S. Lond. (Illustrated).—*Ibid*, 20th August.

Death under A.C.E.

ALBERT B., æt. 3¾, was sent up to Mr. Jacobson's Out-patients on Wednesday, July 13th, by Dr. Mainwaring, for treatment of a swelling behind the right knee. The swelling was diagnosed as an enlargement of the semi-membranosus bursa; the child was admitted into Dorcas ward the next day, and on Friday, at 2 p.m., in very hot weather, an operation was begun for removal of the bursa. The child seemed perfectly healthy in every way, and, according to the mother's statement, had never been unwell.

A.C.E. was given by the Assistant House-Surgeon on a Rendle's mask. The child struggled and cried for about half a minute and quickly lost consciousness, taking long and deep respirations. It was turned on to its left side, slightly on its chest, and the operation was begun.

After easy breathing for a quarter of an hour, the child began to breathe in short, catchy gasps; the face became darker in colour, and finally breathing almost ceased. The mask was removed and breathing restored by abdominal movements, the tongue being drawn out by forceps. Breathing was again regular and the face of a good colour for another two or three minutes, while the tongue-forceps were kept applied, and the mask fitted over them.

Breathing now became worse as before and the face was darkened in colour. The anæsthetist was performing abdominal movements and preparing to give ether on the mask when breathing stopped completely. No ether was, therefore, actually given. At about the same time the sphincters were relaxed. Mr. Jacobson's attention being called to the state of affairs, the operation was stopped, the patient raised by the heels and buttocks, the tongue pulled forward and artificial respiration was performed. A syringeful of ether, and, soon afterwards, a syringeful of brandy were injected, while the mouth was swabbed out and the glottis found to be perfectly free. At the end of five minutes the pulse could no longer be felt, nor the heart-sound heard by auscultation. All laryngeal reflex, as treated by tickling the throat with a feather, was absent; and further artificial respirations proved of no avail.

The Coroner granted an order for a post-mortem examination to be made, and Mr. Way was kindly present at the examination and signed the report. Scattered on the surface of the lungs and in their substance were a few characteristic tubercles. A hard caseating gland, measuring one and a quarter inch by three-quarters, was resting against the lower end of the trachea and the beginning of the left bronchus. There were a few tubercles on the surface of the kidneys, but none were seen elsewhere. The lumen of the bronchus did not seem to be diminished by the gland, but it was thought that it must have been responsible for the failure to react to restorative measures. A report was made to the Coroner accordingly, death was held to be due to "interference with respiration, while under the influence of the anæsthetic mixture, owing to the pressure of a consumptive gland," and a verdict of natural death was returned.

The following deductions may be made:—

(1.) That A.C.E. in hot weather is practically equal to chloroform, the ether evaporating very rapidly. To get the effect of the mixture, the sponge inside the mask should be completely wrung out in hot water whenever a fresh dose of the mixture is given; and pure ether should occasionally be added.

(2.) That, as delicate persons are more prone to faint in hot weather, so there is in hot weather additional danger of syncope under an anæsthetic, and chloroform is all the more dangerous.

(3.) That great care should be given against overdose when the patient is a child and has been anæsthetized, as is the case with half the children, very rapidly after about half a minute's struggling and crying. The child takes very deep breaths both while struggling and afterwards, and may early inhale too much of the vapour. The difficulty is increased by the uncertainty of the pupils as a guide to depth of anæsthesia in children.

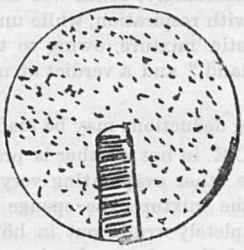
(4.) That it is advisable in all cases to examine the heart and lungs before administering an anæsthetic. Even where, as in this case, auscultatory examination can give no evidence to the point, an ignorant jury may consider failure to examine as an evidence of carelessness.

F. E. FREMANTLE.

Notes of a Case of Foreign Body in the Bladder.

J. J., æt. 26, a collier, was admitted into the Cardiff Infirmary on June 4th, 1896. The patient was unmarried, a healthy young man of low mental development. Previous to admission he was seen by a doctor, to whom at first he made the rather curious statement that he had "swallowed a pencil case and it was troubling him in his water passage." A little enquiry, however, elicited the fact that three weeks and three days before the date of admission he had passed a case for copying-ink leads up his urethra and it had slipped away into his bladder. He thinks the case has come undone because he is passing "ink" in his urine. He further states that there is blood in his water when he passes it after exertion, and that he has lost control of his bladder.

On admission, the patient's urine was found to have an acid reaction, an average specific gravity of 1020, and to contain a trace of albumen. There was neither blood nor ink present. With the sound the foreign body was felt, and with the cystoscope seen. It presented somewhat the appearance shown in the diagram.



On June 9th, under ether, the bladder, having been distended with eight ounces of warm boracic lotion, was opened above the pubes and the case of leads removed. It was found to be closed, just two inches long, made of brass thinly lacquered, and encrusted on the outside with copying-ink deposit; when opened it was found to be full of copying-ink leads. The appearance is shown by the photographic reproduction.*

The bladder wound was closed with silk and a drainage-tube passed down to it, and the remainder of the wound closed with silk-worm gut. A soft catheter was tied into the bladder. The catheter was kept in for a week. There was some slight escape of urine from the wound for three days, viz., from June 15th to 18th.

The patient got up on June 29th, and was discharged on July 11th with the wound healed and the urine normal.

A. WILLIAM SHEEN.

* For the photograph I am indebted to Dr. Bernard Story.

NOTICE TO CORRESPONDENTS.

The Editor wishes it to be understood that no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Chinese Surgery in the last Century.

A correspondent has sent us the following interesting account of a case quoted in "Father Ripa's Residence at the Court of Pekin" (A.D., 1710–1723).

To avoid the heat of summer, which is always excessive in Pekin, the Emperor Kang-hy had built a country residence at Yehol in Tartary, whither he had commanded Father Ripa to follow him, and during this journey the accident happened which he describes:—

Before we were out of the city my horse slipped, and I was instantly thrown, receiving frightful wounds in my head and other parts of my body. As my companions did not dare to stop they recommended me to the care of two heathens and left me fainting in the street, where I remained in this state a considerable time.

When I recovered my senses I found myself in a house, but everything appeared dark and indistinct, and I felt as if I had fallen from my horse two months before. The Emperor (Kang-hy) sent me a Tartar surgeon, for he and his court were fully persuaded that for falls Tartar surgeons were better than Europeans. And to confess the truth, although the mode of treatment was of a barbarous description, and some of the remedies appeared useless, I was cured in a very short time. This surgeon made me sit up in my bed, placing near me a large basin filled with water in which he put a thick piece of ice to reduce it to a freezing point. Then stripping me to the waist he made me stretch my neck over the basin, and, with a cup, he continued for a good while to pour the water on my neck. The pain caused by this operation upon those nerves which take their rise from the pia-mater was so great and insufferable that it seemed to me unequalled. The surgeon said that this would stanch the blood and restore me to my senses, which was actually the case, for in a short time my sight became clear and my mind resumed its powers.

He next bound my head with a band drawn tight by two men, who held the ends while he struck the intermediate part vigorously with a piece of wood, which shook my head violently and gave me dreadful pain. This, if I remember rightly, he said was to set the brain, which he supposed had been displaced. It is true, however, that after the second operation my head felt more free.

A third operation was now performed during which he made me, still stripped to the waist, walk in the open air supported by two persons, and while thus walking he unexpectedly threw a bowl of freezing cold water over my breast. As this caused me to draw my breath with great vehemence, and as my chest had been injured by my fall, it may be easily imagined what were my sufferings under this infliction. The surgeon informed me that if any rib had been dislocated this sudden and hard breathing would restore it to its natural position.

The next proceeding was not less painful and extravagant. The operator made me sit upon the ground, then,

assisted by two men, he held a cloth upon my mouth and nose till I was nearly suffocated. "This," said the Chinese Æsculapius, "by causing a violent heaving of the chest will force back any rib that may have been bent inwards."

The wound in the head not being deep, he healed it by stuffing it with burnt cotton. He then ordered that I should continue to walk much, supported by two persons; that I should not sit long, nor be allowed to sleep before ten o'clock at night, at which time, and not before, I should take a little hifan, that is, thin rice soup. This continued walking caused me to faint several times, but this had been foreseen by the surgeon, who had warned me not to be alarmed. He assured me that these walks in the open air while fasting would prevent the blood from settling on the chest, where it might corrupt.

These remedies were barbarous and excruciating, but I am bound in truth to confess that in seven days I was so completely restored as to be able to resume my journey into Tartary.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Ipecacuanha Root.

Dear Sir,—Your reviewer is right. The composition of Ipecacuanha root, as given in the third edition of my book on Materia Medica, is not quite correct. Owing to the issue of the new British Pharmacopœia, I had to make nearly a thousand alterations in my third edition. Ipecacuanha was corrected in the manuscript, but I am sorry to say that, among so many alterations, I failed to notice that this correction had not got into the text. This, however, is not of much consequence to those of my readers who have attended my lectures, for, in the summer of 1897, I gave a lecture on the recent researches connected with the Ipecacuanha Alkaloids. For the benefit of those who have not attended the lectures, may I be allowed to give the following condensed account.

Ipecacuanha root contains two per cent. of alkaloids, and previously to Paul and Cowley's researches (*Pharmaceutical Journal*, third series, vols. 24 and 25), these were all included under the name Emetine, but the investigations of these observers in 1894, showed that this Emetine really consisted of at least three alkaloids, viz.:—

(*a*) An alkaloid insoluble in caustic alkali, soluble in alcohol, ether and chloroform, uncrystallizable, melting at 68° C., colourless but turning yellow on exposure to light, and having the formula $C_{15}H_{22}NO_2$. This alkaloid Paul and Cowley termed emetine.

(*b*) An alkaloid soluble in caustic alkali, less soluble in ether than emetine, but freely soluble in alcohol and chloroform, crystallizable, melting at 102° C., colourless but turning yellow on exposure to light, and having the formula $C_{14}H_{20}NO_2$. This alkaloid Paul and Cowley called Cephaeline.

(*c*) A third alkaloid very sparingly soluble in ether, crystalline, melting at 138° C. This exists only in minute quantities and Paul and Cowley did not name it.

Both emetine and cephaeline produce vomiting. The relative proportion of these two alkaloids varies in different varieties of ipecacuanha root, there being more cephaeline in that from New Grenada than in that from Brazil, but, roughly speaking there is twice as much emetine as cephaeline.

Ipecacuanhic acid is probably not a definite substance, but a mixture, and requires further investigation.

If it is wished to give the alkaloids, Emetine Hydrochloride is in the market, and a solution of 1 grain of this salt in 8 fl. oz. of sherry forms a vinum of about the same alkaloidal strength as the official vinum.

Quite recently Hesse (*Pharmaceutical Journal*, July 30th, 1898) has published some experiments, from which he concludes that the formula for Emetine is $C_{30}H_{42}N_2O_4$, and that for Cephaeline is $C_{28}H_{38}N_2O_4$, and Paul and Cowley recommend Emetine Hydrobromide for clinical use. It is permanent, is not changed by light, is readily soluble in water and crystallizes in beautiful silky tufts. It is worth while to point out that de-emetized ipecacuanha means ipecacuanha with the old emetine taken out, that is with no alkaloids at all.—I am, yours faithfully,

W. HALE WHITE.

The Physical Society.

Dear Sir,—In your last issue, in reference to some clinical observations on Variola, published in the same number, you say "it is a great pity that some of the papers read before the Physical Society are not of this description, instead of badly-digested abstracts of well-known authorities." Taken literally this paragraph will meet with almost universal approval. The most interesting papers, or parts of papers, are those that give well-written, careful and picturesque observations at first hand.

But the spirit of your remark appears to be that, on the whole, the papers of the Physical Society are badly digested abstracts, and that it would be advisable for the Presidents of the Society to arrange instead for papers giving the writer's personal observations.

I wish most emphatically to protest against either point. Recent papers have dealt with some of the chief subjects of interest to the forward-policy in medicine—serum therapeutics, suprarenal extract, and the physical diagnosis of gastric cancer, for instance—and the digests on the whole have been decidedly good, made with reference to all the recent literature on each subject, and under the kindly guidance of various members of the Staff. To anyone who wishes to have a brief survey of these subjects, an hour spent in listening to the reading of the papers, and half an hour in perusing the reprint

in the GAZETTE, are a most valuable way of acquiring a general knowledge of the chief points concerned. Whether the conclusions be right or wrong, they constitute the results of some dozens of hours' hard reading and thought on the part of the writer, hours of which others should be only too glad to reap in a single hour the benefit. Whether right or wrong, they are equally useful in stimulating the thought of the audience; and that, after all, is the essence of our education.

The second point is the suggestion that papers should contain observations rather than digests; opinions, that is, at first hand rather than second. Now it is unfortunate that the qualified men about the hospital are those who are otherwise engaged, and almost universally refuse to write papers. The senior men in the wards are reading for examinations; the juniors are left with a considerable space of time on their hands to be spent as they think most fit; and it is on these almost invariably that the duty falls of preparing papers for the Society. Is the observation of ward-clerks or dressers worthy of being imparted to a Society? They themselves would be the first to deny it. But it is of great use to them to digest other people's work and go thoroughly into one little particle of a subject; and coming recently from work in the simpler sciences, their criticism is of considerable value. Hence the present system.

But it is undoubtedly a very great pity that the Residents do not undertake some of the papers. Their observation would undoubtedly be worth having. Their training is fresh; their opportunities quite exceptional; and many have already written Theses or reports for degrees or prizes, which might well lay the ground for papers of very great interest. It is to be hoped that during the next sessions some such papers may be forthcoming from the Resident staff.

The fault of the present system rests NOT with those who arrange for the papers, nor with those who undertake them. Rather with those who will not undertake papers, entreat the secretary never so wisely.

Towards such men, Sir, may your influence be directed; but at present the existing system is the only one tenable.—Believe me, Sir, yours truly,

A PRESIDENT OF THE PHYSICAL SOCIETY.

Casus Abortionis.

Feb. 2, 1898.—Mater multipara amenorrhœam inter tres menses habuit.

Dolor et lochia sanguinea nunc observata.

Examinatio vaginalis uterum gravidum monstravit quasi trimestrem. Morphina exhibita ægra-que in toro servata, illa signa subsiderunt. Mater motum fœtalem nunquam sensit et sua figura non crevit.

Aug. 7.—Labor supervenit. Fœtus, ætatis circiter mensibus quatuor, multum compressus maceratus sed non putridus expulsus est. Placenta compressa vel indurata ad duritiam corii manu difficile extracta est. Ægra cite revaluit. Sub tectum ægræ mulier obstetrica vixit et secale fluidum possedit.

Id medicamentum ad uncias tres mater furata est et in portionibus multis divisum citissime bibit.

Etiam dosem diabolicum Magnesiæ Sulphatis cum Spiritu Juniperis (Anglice, Salts and Gin) cepit.

Ita que fœtus vita deleta est.

G. B. S.

Appointments.

CIVIL.

COLEMAN, M. O., M.D. Aberd., M.R.C.S., D.P.H., has been reappointed Medical Officer of Health by the Surbiton Urban Council.

HARNETT, C. J., M.D. Lond., M.R.C.S., has been appointed Resident Surgeon to the Royal Sea Bathing Hospital, Margate.

LANSDOWN, ROBERT G. POOLE, M.D., B.S., M.R.C.S., L.R.C.P., has been appointed Lecturer on Practical Surgery to the Medical School, University College, Bristol.

LAWSON, G. L. L., J.P., M.R.C.P. Edin., M.R.C.S., D.P.H., has been appointed a Public Vaccinator for the Urban and Suburban Districts of Yalzoo, Western Australia.

LOUD, F., L.R.C.P. Lond., M.R.C.S., has been appointed an Honorary Surgeon for the Lewis Victoria Hospital.

POLLOCK, J. R. R., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Tiverton Rural District Council.

SPICER, A. H., M.B., B.S. Lond., has been appointed Registrar to the Chelsea Hospital for Women, Fulham Road, S.W.

TAYLOR, THE HON. W. F., M.D., Kingston, Canada, has been reappointed an Honorary Medical Officer for the Brisbane Hospital, Queensland.

TUBBY, A. H., M.S., M.B. Lond., has been appointed Surgeon to In-Patients on the Honorary Medical Staff of the Evelina Hospital for Sick Children.

NAVAL AND MILITARY.

SURGEON W. BETT, R.N., has been promoted to be Staff-Surgeon.

SURGEON MURRAY P. JONES, R.N., has been appointed to the *Vulcan*; SURGEON HAROLD G. T. MAJOR, R.N., to the *Victory*; SURGEON PERCIVAL M. MAY, R.N., to the *Vivid*; and SURGEON A. E. KELSEY, M.B., to Haslar Hospital.

MAJOR F. T. WILKINSON, R.A.M.C., has proceeded to Egypt on Service; LIEUTENANT J. B. MILNE, M.B., 4th West Riding of Yorkshire Artillery has resigned his commission; LIEUTENANT S. A. MUGFORD, 2nd Volunteer Battalion, the Essex Regiment, is promoted to be Captain.

Passim.

THE Annual House Dinner will take place in the Students' Club on October 3rd., at 6 p.m., before the Physical Society's opening meeting. Dr. Pye Smith, President of the Students' Club, has kindly consented to take the chair. Tickets are limited to 100. Price 3s. 6d. Application to be made to Miss Moore, Stewardess.

AT the Physical Society's meeting afterwards a paper will be read by W. H. Crosse, Esq., late Principal Medical Officer of the Royal Niger Company, and author of "Notes on Malarial Fever."

OUR attention has been drawn to the fact that the Residents and the Assistant House-Surgeons on duty in the Surgery are put to a great deal of trouble, when signing up infectious cases, in deciding to which parish the patient belongs; and if the notification is sent to the wrong officer it is often simply returned without the notifier being informed to whom he should write. As there are so many parishes close to the Hospital from which patients come to be treated, a map, suitably coloured to make out the limits of the various districts, would be a great boon to those who are constantly placed in the above dilemma.

THE difficulty lies, however, in the fact that no such map is obtainable to our knowledge, as parish boundaries are not marked upon ordinary maps. If any reader of the GAZETTE could inform us if, or where, such a map can be obtained he would be doing the Residents here a signal service.

MR. H. P. W. BARROW has our heartiest congratulations on his high place in the list of Army Medical Service entrance examination. Directly after qualifying, and with practically no special reading, he came out third—a most creditable performance. While talking of the Services we would call the attention of recently qualified men to the notice in another column of an examination to fill fifteen vacancies for Surgeons in the Navy.

IT is a sad fact tc chronicle, but it is a fact, that for the present at least asepsis at Guy's is on the decline. Two years ago men were keener on the subject and took more pains, both in preparing for operations, and in their conduct at operations, to preclude any possible source of infection. It is quite a rarity now to see a case dressed simply with sterilized pads, whereas formerly every case that started clean was treated aseptically and dressed with sterilized dressings only. Of course opinions may differ as to the relative value of aseptic and antiseptic methods, but from the point of view of training there is absolutely no comparison; the efficacy of antiseptic lotions is no excuse for slovenliness or dirt. Our shortcomings in these matters are chiefly noticed by visitors who have seen better work done on the Continent or in America, and who are not quite so deeply imbued with the consciousness of our perfection as we are, and their criticisms are usually very just, and unfortunately in some cases not satisfactorily answerable. Let it not be said that Guy's, which has always been in the front rank in matters surgical, is woefully behind in the essential department of common cleanliness.

WE deeply regret to announce the death of Dr. George Roper, an old Guy's man, well known and admired in the profession, who died at Southwold, Suffolk, on August 14th. A short account of his life, with a note by Sir Samuel Wilks, will be found in another column.

WE are publishing, in this number of the GAZETTE, the first part of an abstract of the Report of the Plague Research Committee of 1897. The first part deals with the clinical history of the plague, and the following instalment contains an account of the pathology of the disease by Surgeon-Captain Childe, an old Guy's man, and now Professor of Pathology at the Grant Medical College, Bombay.

THE examinations for the Entrance Scholarships in Arts and Science commence on Tuesday, Sept. 27th.

WE should like to again call the attention of all past and present Guy's men to the appeal made by the President of the Residents in our last number for subscriptions to re-frame and do up the valuable collection of photographs of past Residents at Guy's, which now hang in the dressers' rooms. Subscriptions should be sent to Mr. F. S. Batchelor, and will be acknowledged in the GAZETTE.

Obituary.

George Roper,

M.D. ABERD., M.R.C.P. LOND.

WE regret to announce the death of Dr. George Roper, which occurred at Southwold, Suffolk, on August 14th. He was the third son of Snelling Drosier Roper, of Colby, Norfolk, where he was born on August 15th, 1823. His father owned considerable property in Colby and other parishes in Norfolk, farmed his own land at Colby (where his ancesters had lived for 300 years), and held a captain's commission in the Norfolk Yeomanry Cavalry at the time of the expected French invasion early in this century.

George Roper commenced his professional life by being articled to Mr. F. Wildbore, surgeon, of Shoreditch. He received his medical education at Guy's Hospital, and became M.R.C.S. and L.S.A. in 1847. He subsequently graduated M.D. at Aberdeen in 1873, and became M.R.C.P. Lond. in 1874. After qualifying, he went to Hudson's Bay, as surgeon on one of the Company's vessels, and on his return succeeded Mr. Wildbore when that gentleman retired from practice. He subsequently took Mr. A. Hopkins into partnership, and retired from the practice about 1866.

He was always fond of travel and of all manly pursuits, shooting, hunting, etc., and in January, 1867, journed to China and Japan, returning through Canada and the United States. During the voyage his life was several times in imminent danger, from shipwreck, typhoon, and mutiny amongst the native crew. On his return, in 1868, he resided at Aylsham, Norfolk, for several years, spending his time in country pursuits; but from 1874 to 1880 he was Physician to the Royal Maternity Society, and resided at St. Anne's Street and at West Street, Finsbury Circus. He was also Physician and subsequently Consulting Physician to the Royal Hospital for Children and Women in the Waterloo Road. He was at one time Fellow and Vice-President of the Obstetrical Society, Fellow and Member of Council of the Royal Medical and Chirurgical Society, and Member and Vice-President of the Hunterian Society of London, and Corresponding Member of the Gynæcological Society of Boston, U.S.A. He was the author of several papers on professional subjects, amongst which were, "Action of the Ileo-cæcal Valve in Stercoraceous Vomiting," and "Sudden Death occurring during Labour."

In 1886 he travelled for eighteen months to Canada, and visited San Francisco and the Yosemite Valley, Salt Lake City, Chicago, etc., and went on to Australia and New Zealand. On his return he resided at Ovington Gardens, S.W., but in 1889, removed to Aylsham, near Colby, where he lived until 1897, when he removed to Southwold. His death occurred there after much suffering from angina pectoris. He was a member of the St. Stephen's Club and P.M. of the Unity Lodge (No. 69) of Freemasons. Altogether, Dr. Roper was a man of wide culture and deep sympathies, and his extreme kindness to all the members of his family was quite exemplary. He was never married, but had a very wide circle of friends. The funeral took place at Southwold on August 17th, and was attended by a large number of sorrowing relatives and friends.

Sir Samuel Wilks (President R.C.P.) writes as follows "No man have I more respected than Dr. George Roper. Knowing him first as a fellow student, and then through a long life, my estimate of him, both professionally and personally, has been of the highest. I remember Dr. Roper in general practice in the East End of London, and that it was large and remunerative. I had often spoken to him of his choice of locality in a low-class neighbourhood, and he answered me quite characteristically that he would rather earn a guinea by seeing a dozen poor people over whom he had influence than expending time in talking over the imaginary grievances of some ancient dowager. His straightforwardness and independence of character were his main qualities. He told me that he had never quarreled with a brother practitioner, but had had some severe differences with more than one leading man in the profession, owing to his belief that he had been unfairly dealt with in consultation. He was not the man to accept an insult, and just and generous as he was to others he conceived that he should act in the same manner towards himself.

"He was remarkably acute in his insight into cases, and with a good knowledge of his profession, he made some capital diagnoses in cases of great difficulty. He took a great interest and paid special attention to operative midwifery. In middle life he determined to give up general practice, and devote himself to his more favourite speciality as a consultant. Having no degree, he proceeded to Aberdeen, and nothing better than this determination to do so showed Dr. Roper's indomitable perseverance. He entered the classes and examinations like other and younger students, where his ardour was so marked that he became known as "Young Roper." After he took his degree, he became a member of the College of Physicians, and attached himself to the Infirmary for Women and Children in the Waterloo Road, where he had an opportunity of practically applying his knowledge of female diseases, to the great benefit of the institution. He was a diligent member of the Obstetrical Society, to which he contributed many excellent and important papers. (I cannot give particulars of these, as I am writing these notes on my travels, and have, therefore, no means of reference.) Dr. Roper was also a most valuable officer of the Maternity Charity. In a word, I regard Dr. Roper as having been, in many ways, a model general practitioner, ever ready with his knowledge, influence and skilled hands to those amongst whom he was placed. When he left them and his consulting practice, he retired into Norfolk, where, with his good competence, he was not unmindful of those who needed his benevolence. For myself, there was no man I more respected than my life-long, attached friend Dr. George Roper."

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The Bubonic Plague.

ABSTRACTED FROM THE GOVERNMENT REPORT.

Report by SURGEON-MAJOR LYONS, I.M.S., President of the Plague Research Committee, on the Clinical Aspect of the Plague.

ABSTRACT.

The Plague Research Committee was originally formed in October, 1896, to inquire into the nature and history of the disease, stated to be bubonic plague, of which a number of cases had occurred in Bombay City.

In the present outbreak of plague the infection was no doubt imported from some locality in which the disease existed, but the most searching enquiry failed to discover evidence of plague cases on board vessels which entered Bombay Harbour after 1st June, 1896.

As the outbreak commenced near the docks, it appears most probable that the infection was introduced by sea and carried in their clothes or goods by traders who were themselves insusceptible.

Inquiry was also instituted among ship-owners regarding any noticeable mortality among rats on ships trading with China and ports where plague was known to have existed, but in this case also with negative results.

The disease probably commenced to spread in Bombay about the beginning of August, 1896, as the mortality of the city began to increase in the second week of that month. This increase was attributed to remittent fever and lung affections, but as rats were dying in great numbers in Mandvi Ward, where the death-rate was unusually high and where the prevalence of the epidemic was first discovered, there can be little doubt that the excessive mortality was due to plague. The epidemic spread slowly, until by the second week in February the whole city had become infected. After that time the mortality began to decrease, and by the end of May it had fallen to the normal, and deaths from plague ceased to occur.

It may here be noted that the great difficulty which arises in tracing the mode of infection and the course of plague is due to two facts—*viz.*, that animals such as rats readily contract and afterwards spread the disease, and that the microbe is capable of thriving and multiplying outside the animal body, as is seen, for example, when it is cultivated in broth or on *ghee*. It is evident that infection may be carried by rats to persons who have never been brought into contact with plague patients, and on the other hand, the germs may be conveyed by persons who are themselves insusceptible to plague.

The development of plague in an epidemic form was believed by many persons to be due to rotten grain which had been buried underground, and which had become infected with plague germs; but if the grain had been infected with plague bacilli, the disease would have appeared in several localities simultaneously, wherever the infected grain had been eaten. This did not occur, and the fifty-four grain and flour sellers, etc., who died from plague, died principally in infected localities in the neighbourhood of the docks where the disease first appeared, and did not themselves form centres from which the disease spread in unaffected districts.

The epidemic was observed to increase during the cold season and to decline during the hot weather. This increase during the cold months was probably due, to a great extent, to the sick and healthy occupying the same rooms during the day and sleeping together at night, and also to the depressing effects of the cold. During the warm months the poor live under more sanitary conditions, large numbers sleeping in the open.

The influence of animals in spreading the disease was, with the exception of rats, probably inappreciable. Sheep, goats, horses, cows and pigs, were unaffected; also cats and birds. There was evidence (*post-mortem*) of a dog having been affected.

In the epidemic at present going on at Hardwar, monkeys are infected and dying in considerable numbers.

The influence of ants and bugs in spreading the disease is considered by Mr. Hankin to be unimportant.

All observers up to the present time have connected the occurrence and diffusion of the disease with want and filth, and there seems to be no doubt that these factors do favour it, in so far as they lower the general health and diminish general immunity. But filth *per se* has but little influence. In the House of Correction, Byculla, where cleanliness is brought as nearly to perfection as is attainable, an outbreak occurred which exceeded in severity that in any of the filthy chawls and tenements around. It is a significant fact in this connection that out of 1,579 patients treated at the Arthur Road and Parel Hospitals, there were only sixteen sweepers, and that the halacores who remove the night-soil from the houses, and who form probably the dirtiest portion of the population, were notably free from plague.

The predisposing causes were mainly those leading to a lower state of vitality, and which consequently lessened the natural resistance of the individual to infection. In this way, the long-continued and exceptionally hot season of 1896, the unusually heavy rainfall which followed and which confined the poor constantly in their overcrowded and insanitary dwellings, and the great heat which succeeded the rains, were powerful factors in lowering vitality. Then came scarcity due to dearness of food, and during the cold season the unhealthy condition of chawls (native flats) and houses in the city was rendered worse by overcrowding.

The largest number of admissions into hospital occurred between the ages of twenty and thirty years. At the Arthur Road Hospital, Bombay, out of 1,275 admissions, 445 or 34·9 per cent. occurred between the ages of twenty and thirty years; 291 or 22·8 per cent. between ten and twenty years; and 255 or 20 per cent. between thirty and forty years.

That young adults should give the highest number of admissions is not surprising, as they form the largest proportion of the population, and they travel about

more, and so are brought more frequently into contact with the disease. The greatest number of admissions into hospital occurred among domestic (cooks, hamals, massalchis) and personal servants, who formed 20·88 per cent. This large percentage is doubtless due to the disease being detected early, and to their masters seeing that they were taken to hospital.

The *exciting cause* of plague is the plague bacillus of Kitasato, which is believed to gain admission to the body, usually through an abrasion of the skin, or, more rarely of a mucous surface. In a number of instances in the present epidemic points of inoculation were found on the extremities of plague patients, from which plague cultures were obtained, and in these cases buboes were found above the point of inoculation. In the majority of instances, however, no local indication could be found marking the point at which the microbe was implanted. Less frequently infection is believed to have occurred in the respiratory organs or in the digestive tract. When the disease appears in the form of primary plague pneumonia, it may be caused by the inhalation of bacilli disseminated in the air by patients when they cough, or it may be carried by the blood vessels, or lymphatic vessels to the lungs, where it developes.

When a monkey is inoculated by pricking his hand with a needle dipped in plague culture, the wound disappears in a couple of days, and leaves no indication of the point at which inoculation was performed. After four or five days a bubo appears in the axilla or at the bend of the elbow, and the symptoms of plague develop. The lymph from the bubo contains plague bacilli in great numbers, from which cultures can be made. In the case of man also, as already mentioned, the point at which inoculation occurred was but rarely discovered. Plague bacilli could, however, be obtained in immense numbers, and cultures made, from lymph taken from buboes. In septicæmic cases they could be obtained from the blood as well as from lymph from enlarged glands; and in pneumonic cases they were obtainable from the sputa and from enlarged glands when present. Bacilli were probably also present as a rule in the sputa, vomit, urine and fæces of plague patients, but they were hardly ever found in the blood taken from the finger in cases where a bubo was present from the first.

The slow spread of plague and the immunity observed among hospital servants, nurses and medical men who were in constant contact with the disease, indicates that the germs are but little infectious to healthy persons under ordinary circumstances. Infection occurred most requently among those living in the same rooms with, and in constant attendance on, the sick, and there can be little doubt but that it was often due to the common custom of friends receiving the sputa of the sick in their hands, and using their hands and clothing to wipe away discharges from the patient's mouth.

Plague in its epidemic form, as seen in Bombay, is a malignant infectious disease characterized, in the majority of cases, by enlarged and painful lymphatic glands, high fever, and great prostration; and is due to the presence in the system of the plague bacillus.

The period of incubation varied in duration from thirty-six hours to ten days, the average being four to six days.

Premonitory symptoms.—No definite history could be obtained, the invasion being, as a rule, sudden and marked by severe rigors or by chills. In infants and young children convulsions frequently ushered in the attack.

The symptoms in a typically severe case generally commenced with a well-marked rigor, followed by fever, accompanied by vomiting, headache, and intolerance of light, pain in the epigastrium and frequently also in the back and limbs. The *temperature* rapidly rose to 104° F. or more, reaching its maximum, 105° F. or 106° F. usually on the evening of the second day; occasionally a remission of 1° F., or more, occurred during the day. A well marked fall in temperature of 2° F. to 3° F. or more was frequently noticed on the second or third day, after which the temperature rose again, but seldom to its former height; a further fall to normal, or subnormal, occurred between the fifth and seventh days (*vide chart*). In uncomplicated cases a fall to normal sometimes occurred on the second or third day. The occurrence of complications, *e.g.*, the appearance of fresh buboes, secondary pneumonia, etc., gave rise to great irregularity in the course of the temperature.

Nausea and vomiting were met with at the onset in almost every case, and frequently continued for the first day or two. Frontal or general headache was present from the first and continued while the temperature remained high, subsiding with the fall which occurred on the second or third day. Occasionally epistaxis occurred about this time. The countenance was pale; the eyes red and injected with bands of deeper colour at the outer and inner canthi owing to the eyelids remaining constantly unclosed. Sleeplessness was a distressing symptom, and there was often delirium at night. The pulse frequent, 100 or more, and full at the begining, soon became soft, compressible, and dicrotic, and eventually running, so that it was difficult or impossible to count. The tongue was, as a rule, very characteristic. At first it was tooth-indented, somewhat swollen, and evenly covered with a thin white fur, except at the tip and edges, where it was clean. Later, it became dry, thickly covered with a yellowish-white or brownish-white fur, the tip and edges remaining red and irritable. The bowels were almost always constipated at first, but sometimes diarrhœa was present.

Buboes were met with in over three-fourths of the cases, and in about half the number of cases in which buboes were found, the glands of the vertical set in the groin were involved. They were, as a rule, noticed at the onset of the disease, giving rise to lancinating pain, but in a number of cases were not found until the second or third day. Generally one gland was markedly affected, and two or more adjacent ones less so. The affected glands varied in size from that of a filbert to a walnut, and were tender from the first, although often but little

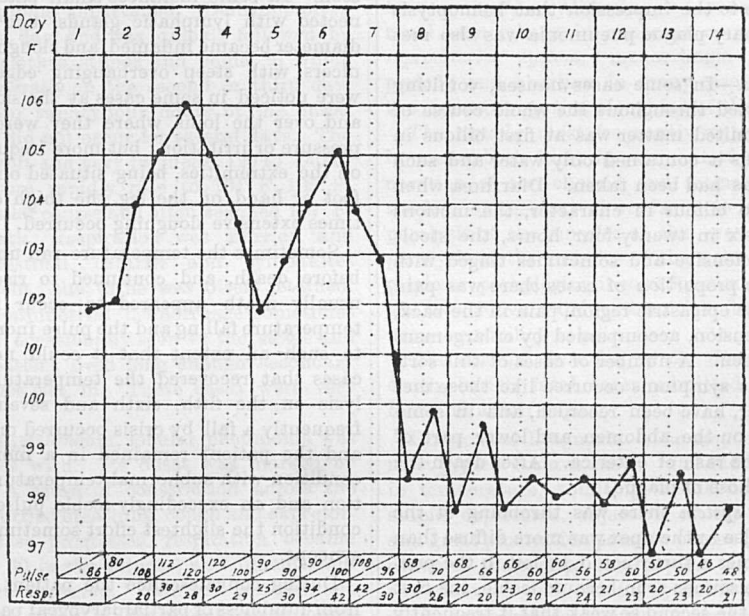
swollen. When in the groin the patient kept the thigh flexed on the abdomen in order to relieve tension. In about two-thirds of the remaining cases the axillary glands were affected, the patient lying on his back with the arm held away from the side and kept perfectly still. In the remaining third the glands below the angle of the jaw or of the superficial cervical set were enlarged.

As a rule a bubo appeared only in one region, but sometimes they were found in more than one region, or on both sides of the body. As the disease progressed the glands of the same chain, situated above those first affected, became enlarged. A rise in temperature occurred with each fresh gland or group of glands involved.

cicatrices. In cases where suppuration did not take place the glands remained hard and indurated long after convalescence was established.

The nervous system was markedly affected in almost every case from the beginning of the fever. The patient complained of extreme feebleness and prostration. There was some loss of sensibility to touch, and often the general cutaneous sensibility to pain also seemed impaired, but in a few cases there was marked hyperæsthesia. Intelligence was generally unaffected at first, but sometimes the patient appeared to be dazed, stupid, and indifferent to his surroundings. Memory was defective. In a number of cases, owing to inco-ordination of the

J.G.G.(E)L. Fem. Bubo Suppurated Rec.



In cases which proved fatal early, the buboes continued hard and very tender to the last; while in more prolonged cases effusion, frequently large in amount, occurred around them, giving rise to a doughy or brawny swelling, and often causing œdema of the limb below from pressure on the vessels and nerves. With the appearance of effusion the buboes usually became less painful. In a few cases the swelling subsided by resolution, but in the majority suppuration occurred after the seventh or eighth day, the skin over the infiltrated area becoming inflamed. On opening the bubo, thin yellowish or sanious pus was evacuated; the skin frequently sloughed eventually, however, leaving an indolent unhealthy ulcer, with ragged overhanging edges and a greyish sloughing base, on which one or more necrosed lymphatic glands might be seen. Such ulcers usually took weeks to heal and gave rise to large thickened

lingual muscles, there was thickness of speech like that caused by alcoholic poisoning, and this symptom was so characteristic that the attendants in hospital came to look upon it as a certain sign of plague in cases where enlarged glands have not already appeared. Later in the disease dumbness not infrequently occurred from paralysis of the laryngeal muscles. In addition to loss of muscular power in the upper and lower limbs there was tremor and twitching of the muscles of the hands, and in many cases marked loss of co-ordination also, causing clumsiness of movement in the hands, and giving rise to a staggering gait on attempting to walk. As a rule there was loss of expression, owing to relaxation of the facia muscles, giving the patient an apathetic or a stupid look, and masking the approach of death. Occasionally at the beginning of the illness the expression was anxious In a number of cases cerebral symptoms were presen

from the commencement of the disease and continued throughout the attack, taking either the form of delirium of the busy type, like that of delirium tremens, or of coma. Among children convulsions frequently took the place of delirium. Cases marked by stupor generally died within the first two days, sometimes even within twenty-four hours.

The respiratory symptoms were hurried breathing and a sense of oppression and tightness across the chest. In most cases congestion of the bases of the lungs occurred early, and was followed in many instances by bronchitis, œdema of the lungs, or by secondary pneumonia. In these cases of secondary pneumonia the expectoration was bronchitic in character, and after a short time became profuse and watery, showing a considerable colouring of blood. These blood-stained serous sputa, sometimes gave rise to the impression that hæmoptysis had occurred. Primary plague pneumonia was also met with.

Alimentary system.—In some cases nausea, vomiting and diarrhœa persisted throughout the whole course of the attack. The vomited matter was at first bilious in character; afterwards it contained only water and such liquid nourishment as had been taken. Diarrhœa when it occurred was also bilious in character, the motions numbering five or six in twenty-four hours, the stools being always very offensive and sometimes tinged with blood. In a certain proportion of cases there was pain and tenderness in the epigastric region, pain in the back, and abdominal distension, accompanied by enlargement of the liver and spleen. A number of cases of this sort, in which low nervous symptoms occurred like those met with in enteric fever, have been recorded, and in some petechiæ were seen on the abdomen and lower part of thorax resembling the rash of enterica. After death the lesions found were those of plague.

In the circulatory system there was throbbing of the carotids. The impulse at the apex was more diffuse than normal, and sometimes a thrill could be felt in the præcordial region. The sounds soon became feeble, the first being shortened and the second so weak that it frequently could not be heard at the apex. In one case only, was a murmur present, although in many cases the heart appeared to be dilated. The blood drawn from the finger coagulated slowly, and the red corpuscles did not tend to run into rouleaux quickly. Where the disease had lasted for a few days the number of white corpuscles was greatly in excess of the normal. In most cases after the first day, and in all cases after two or three days a marked fall in blood pressure occurred.

In the urinary system pain was sometimes present in the region of the kidneys The urine secreted was diminished in quantity, of high specific gravity, and intensely acid in reaction. In colour it was generally brownish yellow, but sometimes it was smoky or red from the presence of blood. Albumen was present in about three-fourths of the cases, urea and uric acid were deficient, and chlorides markedly deficient; casts were generally present. Micturition was frequent in many cases. In cases which terminated fatally the urine was often retained towards the end.

Where pregnancy was present, the patient usually but not invariably aborted on the first or second day after the onset of the disease. When premature labour occurred, both mother and child usually died.

The cutaneous system.—The skin was hot and burning to the touch from the first, and continued dry and harsh until the temperature began to decline on the third or fourth day, after which it became moist. On the temperature falling to normal or sub-normal, sweating almost invariably occurred and continued for a few days, being usually worse at night. Occasionally before death petechiæ were observed over buboes or on the abdomen; but no characteristic skin eruptions were seen. In some instances small patches of skin (unconnected with lymphatic glands) two or three inches in diameter became inflamed, and sloughed, leaving indolent ulcers with steep overhanging edges. These patches were noticed in some cases at the sides of the abdomen, and over the loins, where they were in no way due to pressure or irritation; but more frequently they occurred on the extremities, being situated on the dorsum of the foot or hand, on the leg, the thigh or forearm. Sometimes extensive sloughing occurred.

Sometimes the temperature ran up to 107° F. or more before death, and continued to rise after death; but usually death appeared to occur from collapse, the temperature falling and the pulse increasing in frequency to such an extent that it could not be counted. In cases that recovered the temperature generally fell by lysis on the fifth, sixth and seventh days. Not infrequently a fall by crisis occurred on one of these days, and the patient remained in a more or less collapsed condition with subnormal temperature, profuse perspiration and an exceedingly feeble pulse for days. In this condition the slightest effort sometimes gave rise to fatal syncope.

During convalescence the patient sometimes suffered from dumbness or partial laryngeal paralysis; hemiplegia, paraplegia involving the legs or the legs and arms, or monoplegia of a limb or a portion of a limb. In some cases facial paralysis was observed, or paralysis of one or more ocular muscles. More rarely the inco-ordination of the tongue, hands, arms or legs, noticed at the beginning of the attack, remained present during convalescence, and the speech continued slow, thick, and indistinct.

Occasionally an attack of plague ran a very mild course, the patient (frequently a boy of ten or twelve years) not being confined to bed by it. In these cases enlargement and tenderness of a lymphatic gland was noticed, followed by fever, headache, a characteristic tongue and sometimes nausea and vomiting; the temperature rarely exceeded 103° F. or 104° F., and generally fell to normal or subnormal on second or third day. Prostration and cerebral symptoms were not well marked, and the bubo subsided as a rule without suppurating. The duration of the attack seldom exceeded three

or four days, and convalescence was established in a week or ten days.

There remain to be described two forms of the disease in which the general features of plague in its most acute form were present, but in which there were no buboes during life, and in which, after death, only very slight glandular enlargement was found.

In one of these forms, *septicæmic plague*, the microbe multiplies in the blood; in the other it grows in the lungs giving rise to *primary plague pneumonia*.

In *septicæmic plague* the invasion was usually marked by a prolonged severe rigor or repeated rigors, and vomiting, headache and high fever were constantly present. The most distinctive features of this form of the disease were the great nervous prostration and muscular weakness present from the beginning, and the rapidity with which cerebral symptoms supervened. Delirium often set in during the first day, and was quickly followed by picking at the bed clothes, stupor and coma, in which the patient died generally on the second or third day, but sometimes within twenty-four hours of the onset. In some cases death did not occur for several days. The pulse early became soft and very frequent, 120 to 140 or more, the temperature rapidly rose to 104° F. 105° F. 106° F., ran an irregular course and often reached 107° F. or more before death; respiration was hurried and panting; gastro-intestinal catarrh and tympanites were frequently present; the urine was often retained. Epistaxis and sub-conjunctival hæmorrhage sometimes occurred; blood was occasionally seen in the stools and urine; and, if the patient lived long enough, secondary pneumonia sometimes set in. These cases were very fatal.

In primary plague pneumonia, lobular pneumonia was the form usually met with. Its onset was marked by rigors, followed by a sense of constriction across the chest, difficult and hurried breathing, cough and expectoration. As the disease progressed, respiration became very frequent (40 to 60 in the minute) and difficult, and duskiness of the face appeared. Pain was present, but never appeared to be severe. The expectoration, bronchitic at the beginning, very soon became watery and profuse; it often contained little whitish specks floating in it, containing plague bacilli in great numbers. Frequently this serous expectoration was tinged of a pink or reddish colour from the presence of blood; but rusty sputa, as in ordinary croupous pneumonia, were rarely seen. There was great prostration from the first; the pulse soon became feeble and very frequent, so that the alteration in the pulse-respiration ratio ordinarily met with in pneumonia was not observed; the temperature was high and ran an irregular course; the tongue was coated white, except at the tip and edges, and the bowels were confined. The physical signs were those of broncho-pneumonia, patches of consolidation being found in one or both lungs, the right generally being the one most affected. Soon marked œdema occurred, the lungs becoming loaded with fluid. Death generally ensued in three or four days, and was preceded by incessant cough and by blueness of the skin due to deficient æration of blood, caused mainly by the amount of fluid in the air vesicles.

The complications met with in plague were—in the *nervous system*, delusions, in one case ending in insanity; motor paralysis, local or general; impaired sense of touch; sometimes diminished sensibility to pain, some hyperæsthesia; deafness; ulceration of the cornea, conjunctivitis, and sub-conjunctival hæmorrhage. In the *circulatory system*, softening of the muscular tissue of the heart with enfeebled cardiac action and dilatation of the heart. In the *respiratory system*, bronchitis; hypostatic congestion and œdema of the lungs, secondary pneumonia; pleurisy; and rarely pulmonary hæmorrhage. In the *digestive system*, gastro-enteric catarrh; diarrhœa; and in a few cases hæmorrhage from the bowels. In the *urinary system*, albuminuria; renal congestion, and renal hæmorrhage, in one case causing death. In the *reproductive system*, menorrhagia at the menstrual period; and abortion in many cases of pregnancy. In the *cutaneous system*, sloughing of the skin, and boils.

The sequelæ most frequently met with were deafness in one or both ears; impairment of vision due to degeneration of the choroid and retina; dumbness due to the loss of memory of words, or to laryngeal paralysis; paralysis of the muscles of the eyes or face; paresis or paralysis of the muscles of the extremities either hemiplegic or paraplegic; inco-ordination of the muscles of the face, tongue and extremities; impairment of cutaneous sensibility to pain.

The average duration of the disease from attack to death, in 902 fatal cases admitted into hospital, was four and a half days.

Differential Diagnosis.—*The diagnosis of plague* in its most typical form is easy. The sudden onset, rapid rise in temperature, vomiting, headache, sleeplessness, the stupid expression, injection of the eyes, thick speech and great prostration point to plague; and later, the condition of the tongue, the frequent and very feeble pulse, the enlarged and painful lymphatic glands, the course of the temperature (showing a marked fall on the second or third day, followed by a further fall to normal or subnormal between the fifth and seventh days) and the rapidly fatal course of the disease in the majority of cases, render the diagnosis unmistakable.

When, however, the disease takes the form of *primary plague pneumonia*, it becomes exceedingly difficult to diagnose, whilst at the same time, owing to the danger of infection from the sputa, which contain plague bacilli in great numbers, it is most important to recognise it early. In primary plague pneumonia the absence of acute or subacute bronchitis before the attack; the rapidity with which high fever, severe headache and marked prostration occur after the onset; the character of the expectoration, less viscid from the first and early becoming profuse and watery, and generally tinged with blood or reddish from admixture of blood; the rapidity with which signs of œdema of the lungs appear; the quality of the pulse, which is never full and bounding,

and soon becomes very soft and frequent, serve to distinguish it from ordinary broncho-pneumonia or lobar pneumonia in the majority of cases; and the presence in all cases of immense numbers of plague bacilli in the sputa, from which cultures can be obtained, renders the diagnosis certain.

Severe cases of *malarial fever* may be distinguished from plague by the nature of the onset, the cold stage being more prolonged, the features pale and shrunken, and the nails blue. In the hot stage, the face becomes flushed and the pulse full and bounding, but is not so frequent as in plague. In malarial cases, too, the temperature generally shows marked periodicity.

Relapsing fever, like plague, occurs in times of scarcity. In relapsing fever there is giddiness; prostration is slight; jaundice not infrequently occurs on the third or fourth day; the face is flushed, and the expression is not stupid nor confused; buboes are not met with; and spirilla are found in the blood during the height of the fever.

Typhus fever somewhat resembles plague in its onset; but the duskiness and flushing of the face present at the beginning of typhus, and the occurrence of an eruption on the body and limbs between the fifth and seventh days, as well as the different course of the temperature; and the absence of buboes serves to distinguish between them.

Owing to the feebleness, thick utterance and staggering gait, frequently seen in plague cases, the disease is sometimes mistaken for *alcoholic poisoning*.

From enteric fever, plague may be diagnosed by the following points:—

The onset is sudden, usually ushered in by a well-marked rigor; the temperature shows a high initial rise, followed by a marked remission to about normal on the second, third or fourth day; the pulse large and full at first, becomes peculiarly soft, and is characterised by a great want of sharpness in stroke; it is very compressible at an early stage and dicrotic; the aspect is dull, heavy and apathetic; the eyes are dull and muddy-looking, the conjunctivæ are suffused, but the pupils in most cases are normal; there is generally flushing of the face; diarrhœa when present is simple, but very offensive; delirium and other cerebral disturbance occur early, and there is great prostration from the first; abdominal distension occurs early, on the third, fourth or fifth day; the eruption is not readily effaced and is of a "deep red colour (petechial)"; there is severe pain lumbar in many cases.

The *prognosis* of plague is always exceedingly grave, as it is the most fatal of all known epidemic diseases.

The mortality among those attacked during the present outbreak was probably between 65 and 70 per cent.

Looking at the mortality, according to race and caste, among the patients admitted into Arthur Road and Parel Hospitals the highest mortality, 71·25 per cent., occurred among Hindoos; then follow Jews, 66·67 per cent., Native Christians, 65·45 per cent.; Brahmins, 65·21 per cent.; Parsees, 64·29 per cent.; Mahomedans, 64·24 per cent.; Europeans and Eurasians, 38·95 per cent.

Treatment.—No specific remedy has up to the present been discovered for the treatment of plague cases.

During the present epidemic two lines of treatment have been tried, the one, *hygienic and symptomatic*, the other, *the antitoxic treatment*.

The hygienic and symptomatic treatment consists in economising, as far as possible, the nervous and muscular energy of the patient by placing him under the most favourable conditions, and treating symptoms. With this object a plague patient is put to bed at the onset of the disease, kept in the recumbent posture (on account of the tendency which there is to fatal syncope) until convalescence is established, and supplied with suitable nourishment at short intervals.

The symptoms which require special attention are those connected with the nervous system and with the circulation. These symptoms are treated on general lines, *i.e.* the avoidance of light, the application of ice or cold water to the head and surface of the body if the temperature continues high, and the use of hypnotics and sedatives for sleeplessness and delirium.

In connection with the circulation the symptoms to be combated are vasomotor paralysis and heart failure, the latter probably due partly to the direct action of the toxic poison on the cardiac ganglia and partly to softening and degeneration of the muscular wall of the heart. For these symptoms the use of alcohol in some form is generally required after the first day; in most cases also the administration of drugs which act as cardiac tonics and vascular stimulants such as ammonia, digitalis, strychnine, quinine, is found necessary. All drugs which depress the heart and circulation should, as far as possible, be avoided.

The treatment of pneumonia, primary or secondary, calls for the free administration of stimulants and of stimulating expectorants for the relief of cough and dyspnœa, due to the accumulation of fluid in the bronchial tubes.

Gastro-intestinal symptoms, buboes and such other complications as arise are managed on general principles.

In *treatment by antitoxine* the correct principle of removing the cause of the disease is aimed at, but up to the present time, so far as information is obtainable of M. Yersin's results, it has failed to influence favourably the mortality among those attacked.

The *prophylactic measures* which demand attention on the occurrence of a case of plague in a family are the removal, when practicable, of the unaffected members from the house, to allow of its being thoroughly cleaned, and of the patient to a hospital, unless suitable provision can be made for his treatment at home. All those who have been living with him should undergo inoculation against plague, as this is found to diminish the risk of infection by 70 to 80 per cent., and to increase the prospect of recovery in those attacked after inoculation by 60 to 70 per cent. The patient's sputa and excreta and all discharges from buboes and sores should be

received in vessels containing suitable disinfectants, and on the termination of the illness everything which was used by him, or had been rendered liable to contamination, should be thoroughly cleansed and disinfected, or, if practicable, burnt.

(To be continued.)

Reviews.

Wasted Records of Disease. By Charles E. Paget, Lecturer on Public Health in the Owens College. (London: Edward Arnold, 1897.)

Here is a careful argument on the thesis that records of disease could and should be made a basis of prophylactic science instead of being, as they now are, lost to the commonwealth. Beginning with the voluntary efforts of the last forty years, the author shows how the proved value of isolated, and necessarily imperfect, registration of disease forced the government into half-hearted action.

In the history of official action he recognises three chief stages:—

(1). The appointment in 1872 of Medical Officers of Health who are directed to send annual reports to the Local Government Board. The reports are sent, and nobody knows what becomes of them.

(2). The Infectious Diseases Notification Act of 1889, by which notification is made compulsory for London, but voluntary for the provinces. Weekly returns of notifications from about 200 out of 1000 notifying districts are tabulated by the Local Government Board and distributed to Medical Officers of Health, marked "not for publication."

(3). The Local Government Board has given authority to Poor Law Guardians to forward to Medical Officers of Health of their own district copies of the entries of all new cases of disease reported by the Poor Law Medical Officers. The only use practically made of these copies is that they form a substitute for notification in districts where the act of 1889 is not in force.

This being the very unsatisfactory state of the law, Mr. Paget proceeds to discuss what improvements are desirable and practicable. Here one is glad to note the prudence with which he aims at the possible, avoiding the unattainable idea of logic or sentiment. "The time is not one for serious changes of form or manner in regard to those procedures which are already established; the question should rather be, how, without seriously interfering with them, they may be more effectively directed." He continues, "In all that is now done on the lines of registration there is terrible *waste*, and this waste appears to be simply due to the want of system and the authority to deal with the facts collected."

To remedy this state of affairs, Mr. Paget proposes:—

(1). As regards infectious disease, the Notification Act of 1889 should be made everywhere compulsory. Returns should be collected, tabulated and *published* weekly. To these measures Mr. Paget anticipates no opposition, unless it be from unhealthy health resorts.

(2). As regards non-infectious disease, it is, perhaps, hopeless to look for complete registration, but

a. Records of Poor Law sickness could be collected and published monthly or quarterly.

b. Hospital records ought to be collected and used.

c. Sickness could be recorded in friendly societies

d. In the post office and police force.

The last question is, What central authority could undertake the work? Mr. Paget thinks that the Local Government Board has already as much as it can do, neither has it sufficient powers. His own view is that the Registrar-General might add the registration of disease to the function which he already fulfils of recording births, deaths and marriages.

The correctness of these views is a matter which your reviewer is incompetent to discuss, but this much is certain, that they are set forth with such simplicity and moderation that one finds oneself wishing them correct, and half persuaded into thinking so.

Diseases of the Nervous System. By Charles E. Beevor. (London: H. K. Lewis.)

For those who find the style of what are usually described as the "ordinary text-books" too exhausting for examination purposes, and too condensed for clinical reference, a treatise such as the present will be eminently useful. The author, in his preface, very rightly insists on the importance of a systematic method of examination in all diseases of the nervous system, and with a view of combating the slipshod procedure of the average student, devotes the first eighty-three pages to a short account of the anatomy of the nervous system, and the methods of examination and case-taking in nervous diseases. It has been said that after the knee-jerks have been tested, and the pupils possibly examined for the Argyl-Robertson reaction, most men are somewhat at a loss what to do next, and this is no doubt to some extent true; the value, therefore, of this portion of the work cannot be doubted. In the subsequent chapters the diseases are dealt with much in the usual order; an excellent chapter (ch. xi.) being interpolated, grouping the diseases of the spinal cord for diagnostic purposes; this should prove most useful, both clinically and from the purely "examination point of view."

It is not so much in the better known and commoner diseases of the nervous system that this book has the advantage over a work on general medicine, but in those intermediate diseases, of which most practitioners and students see one or two examples, and which are usually dismissed with a few lines in a text-book. The very rare forms of disease are, on the other hand, not very fully dealt with, and rightly; for those who desire more than a general knowledge of the nervous system and its abnormalities, one can hardly expect to attain it in the space of some four hundred odd pages.

The style throughout is extremely simple, the author, doubtless, considering that the intrinsic interest of the subject must be sufficient to carry his readers on without the adornments of picturesque phrase or vivid description; moreover, where space is limited these things may well be dispensed with both for the author's sake and the reader's.

There are some excellent and interesting diagrams at the end of the book well calculated to stimulate many a clinical assistant to map out areas of anæsthesia, and logically mete out to this or that segment of the cord its appropriate pathological condition; a process which should strike wonder into the heart of the ward clerk, and turn the way-worn House Physician green with envy.

Clinical Methods. By Robert Hutchinson, M.D., M.R.C.P., and Henry Raines, M.A., F.R.C.P. Edin.

In the preface to this book, which forms one of the series of Messrs. Cassell's well-known Clinical Manuals, the authors state that the book "Aims at describing those methods of clinical investigation by the proper application of which a correct diagnosis can alone be arrived at."

This certainly describes the scope of the book, for the questions of medical diagnosis are only considered when they cannot well be separated from a consideration of the means and methods.

In the first chapter a good scheme is given for the interrogation of a patient: firstly a general interrogation, then special interrogation according to the system or organ diseased. This is followed by a concise arrangement for the physical examination of each system. Conciseness is especially urged on the beginner throughout this chapter. The following may be quoted:—"Nothing is more annoying than to have to wade through a mass of verbiage in order to get at the chief facts of a particlar case."

The succeeding chapters take up the different systems in turn, and the methods of examining each are fully gone into. In the chapter on Clinical Examination of the Blood, the methods of preparing and staining blood films, and the changes in the blood in the different varieties of leucocythæmia are described.

Special attention may also be directed to the chapters on the Clinical Examination of Children and Clinical Bacteriology, in the latter of which, among other things, the principle of Widal's reaction for typhoid, and the method of performing the test are described.

The book contains 137 illustrations and eight plates, including diagrams of motor point for electrical testing. The book is exceeding well arranged, and will be found most useful to those beginning Clinical work. We should heartily recommend it to the notice of clinical assistants and ward clerks.

Manual of Operative Surgery. By H. J. Waring, M.S., M.B., B.Sc. Lond., F.R.C.S. (Edinburgh and London: Young J. Pentland, 1898.)

If any additional work on operative surgery is needed no doubt this manual will be welcomed as a useful, comprehensive, and yet compact treatise on present-day operative surgery. The clearness with which the author under each operation discusses—

1. The indications.
2. The preliminary preparations.
3. The instruments.
4. The position of the patient and operator.
5. The operation; and
6. The after treatment,

will render the book extremely valuable to those who have, or have had, but few opportunities of practising or witnessing much up-to-date surgery. In fact, the question may well be raised whether the author has not somewhat unnecessarily sacrificed conciseness to excessive detail.

Perhaps the best chapter in the volume is that on amputations, while an excellent feature of that on ligature of blood-vessels is the plan of introducing concise accounts of the anatomy of the various vessels, together with diagrams of cross sections of the limbs in question. The branch of the subject in which the greatest strides have been made of recent years, namely, abdominal surgery, is dealt with in a very masterly manner, the author having, with great discrimination, selected only the most popular and, therefore, perhaps, the most valuable of the innumerable operations on the various regions. Urethral surgery is dealt with hardly perhaps as fully as it deserves, and on the other hand, descriptions of many minor surgical methods such as plugging the posterior nares are put in which might well have been omitted.

Many of the illustrations, of which there are over 400, are, to our mind, quite unnecessary, and in some few instances, *e.g.* that on page 111, foolish. We know of no surgeon who would operate on an umbilical hernia with the patient entirely exposed as there indicated. Of course, in a volume of this size—there are over 650 pages—many minute errors have crept in, which will no doubt be rectified in the next edition. For instance, the diagram of the brain on p. 268 should exchange positions with that on the opposite page, and those on p. 32 seem somehow upside down. One other little point that struck us as a trifle absurd is the application of an *a*septic dressing to a slit up anal fissure. But to leave these minor details, the book, as a whole, is well worthy of perusal by those who wish a change from the little Treves manual, the popularity of which, however, we do not think the new volume is likely to upset.

The Botanists' Vade Mecum and Schedules for Plant Description. By John Wishart. (Edinburgh: E. & S. Livingstone, 2s. and 6d.)

The former of these two publications is a very handy little pocket guide to the classification of plants, intended for use during botanical excursions. The matter is very concise and well arranged, and the value of the book is very materially enhanced by an ingenious and novel form of index.

The Schedules for plant description are skeleton tables for filling in descriptions of plants, each sheet being a separate form, the whole being bound in a paper cover. Both these books should prove very useful to practical botanists.

Practical Organic Chemistry. By Samuel Rideal, D.Sc. Lond. (London: H. K. Lewis, Gower Street, 2s. 6d.)

A very compact and useful handbook of the principal tests and reactions of the common organic compounds. It is intended for the use of students preparing for the Inter. M.B. London and similar examinations, and appears admirably adapted to the purpose.

The Clubs' Union Year Book for 1898.—The Clubs' Union Blue Book for the present year, the most generally useful publication that we possess, is now obtainable. It contains, as usual, the names of the governing bodies and the rules of all the constituent clubs of the Union, and the ever-increasing town and country directory of Guy's men.

It is supposed to be corrected and revised so as to be up to date for October, but as it has to go to press some month or two before publication, and its compilers are not gifted with the art of prophesy, it contains some unavoidable lapses from the truth, but we will not disturb the public faith in its veracity by calling attention to the individual errors.

A new and most excellent, feature in the present issue is that of publishing the names of recent or famous teams of each particular club. This is most useful information for most men, and gives a little additional glory to those who deserve it most, to wit, the members of such teams. There is a pathetic hopefulness about the advertisement of the Guy's Hospital Reports, now extinct, we believe, that is most admirable. Philosophy is a virtue to be cultivated among editors, especially of annual reports.

We quote from the official advertisement: "The reports are now published annually." If we did not hold the names of the two editors in the highest esteem we should say that they were not speaking the truth.

In conclusion, we can only repeat what we said above, that the Blue Book is a most useful publication, and every man should get his copy for this year at the earliest opportunity.

From the Gazette's Special Pathologist.

All specimens—particularly those of solid tissues—should be accompanied, if possible, by a short clinical and post-mortem history, and a postal order for 2s. 6d. An extra charge of 6d. per slide is made when prepared sections are to be forwarded.

Directions to be followed in sending *Diphtheritic Membrane*:—Remove as much of the membranous exudation as possible with a pair of forceps, which have been sterilized by boiling water. Place the exudation in a small, perfectly clean empty bottle, with a well-fitting glass stopper, and forward without delay. No preservative fluid should be used. The specimen must be accompanied by a Postal Order for 5s. A telegram will be despatched immediately the examination of the specimen is completed.

Diphtheria specimens are to be labelled *Immediate*.

Postal Orders to be made payable to Mr. C. H. Wells.

NOTICES.

H. B., Builth.—This sputum was centrifugalized, but no tubercle bacilli could be found in the sediment so obtained.

L. E. R., Brenchley.—Tubercle bacilli are present in the sputum in fair numbers.

A. E. P., Loughborough.—Reaction alkaline, spec. gr. 1014; albumen, blood and sugar absent. *Microscopical Examination*:—The centrifuge separates a considerable deposit of phosphates from this urine, amorphous and crystals of trible phosphate. But there is no pus, and no casts could be found. Large epithelial "squames" are abundant.

E. R. N., Hastings.—Tubercle bacilli are present in the sputum in small numbers.

PATHOLOGIST.

Sport.

Guy's Hospital Lawn Tennis Club.

REPORT OF SEASON.

With the match v. the Harold L.T.C. on Thursday, July 28th, the tennis season as far as matches are concerned, came to an end. The result "Abandoned owing to rain" being a fair index of the issue of the greater number of matches.

With two at least of last season's couples available for this summer, it was thought at the end of last season that we should be able to put a fair team in for the Inter-Hospital Competition. Such, however, was not to be, neither Rowland nor Williams were able to play in

matches this season, and the trial games producing no striking players, we were forced to begin the season's matches relying on casual support for our third pair.

Result of season's matches:—

Played	9
Won	3
Lost	6
Abandoned owing to rain, etc.	10

In addition we lost badly to St. Bart's., in the first round of the Inter-Hospital Cup competition.

By far the best win for the Club was the match v. Albemarle. The Albemarle Club have lately beaten the Hospital pointless, or nearly so, and to be able to turn the tables on them, and that the last match of the season, looks hopeful for next year.

There is no disgrace in losing to such clubs as Connaught or "the Kent," but we certainly ought not to have let Hornsey beat us twice.

Mandy and Lacey have played in most matches, and as a consequence have come out with slightly the best result, but their play as a couple has not improved so much as it should have, exams. greatly interfering with their practice. The same remark is equally applicable to Cross who partnered Kelsey in the Inter-Hospital Competition. Cross, one feels certain has never done himself justice this season.

Kelsey did not come forward as a tennis player till rather later. He began by partnering Cross, but the two never seemed happy as a couple, and it was not till Wacher returned from Cambridge, and the two had entered into partnership that it became evident what a really useful man Kelsey was.

Kelsey and Wacher are a promising pair, their ground work and volleying being clean and hard, especially Wacher's. Kelsey must pay more attention to his overhead work. It was a great pity that Wacher was unable to enter for either the handicap or championship.

The third pair was always an uncertain quantity, and the following have played—M. C. Wetherell, Willan Swan, Fremantle, Rowland, Ransford, Brydone, Alabone Ring and Humphry. All the above are, or could develop into really useful players, could cricket or hospital work allow them to devote more time to practice.

With Kelsey, Wacher, Lacey, Mandy, Cross, and possibly Jupp available for next season the outlook seems promising. Jupp who kept too much in the background at the beginning of the season would, at least as a single player, be a useful addition to the team.

Vacation tennis has and is being eagerly pursued by an enthusiastic few, the recent rains having done the courts no end of good. The policy of throwing the courts open to ladies introduced by members on all week-days during August and September seems to have answered well, and not to have led to overcrowding. The nurses, too, seem lately to have made use of their opportunities by journeying, racket in hand, to Honor Oak in good numbers.

Next season it is hoped that the practice of playing a few matches in August and September will be renewed, there being decidedly more keenness in that respect this season. A vacation handicap, too, has been suggested.

As brick-making seems to be the order of the day on the land above the terrace courts, now or never seems to be the time for securing, if possible, the few extra yards necessary to make the three Terrace Courts nearest the Pavilion practicable for the single game.

Notice.

Medical Department of the Navy,
Admiralty,
Northumberland Avenue, W.C.,
19th August, 1898.

An examination of Candidates for entry into the Medical Department of the Royal Navy will be held on the 31st October next and following days at Examination Hall, Thames Embankment.

Fifteen Commissions, as Surgeon, will be offered for competition.

The forms to be filled up by Candidates will be supplied on application to this Department.

H. F. NORBURY,
Medical Director General.

Case for Diagnosis on page 572.

Result.—At the operation the tumour was found to consist of a retained right testicle, with a large patent funicular process distended with pus. The appendix was found kinked and acutely inflamed, and there was general acute peritonitis. The patient died three days later.

Births.

BEVEN.—On August 23rd, at 3, Balham Grove, Balham, S.W., the wife of Octavius Beven, M.D., D.P.H., of a daughter.

DALDY.—On August 16th, at Springfield Road, Kingston-on-Thames, the wife of Arthur M. Daldy, M.D., F.R.C.S., of a son.

PANTIN.—On August 20th, at Douglas Terrace, Isle of Man, the wife of C. S. Pantin, M.D., F.R.C.S., of a daughter.

Deaths.

BARROW.—On August 20th, at Guy's Hospital, C. A. E. Barrow, L.R.C.P. Edin., M.R.C.S., of Sutton, Surrey, aged 47.

ROPER.—On August 14th, at Southwold, Suffolk, George Roper, M.D., formerly of Ovington Gardens, S.W., aged 75.

ED.—H. L. E.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, GUY'S HOSPITAL GAZETTE, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the GAZETTE *bound should leave them with the Librarian.*

The annual Subscription to the GAZETTE *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well as subscriptions, should be sent to the Financial Editor,* Mr. C. H. WELLS, SECRETARY'S OFFICE, GUY'S HOSPITAL.

The charge for binding in blue, with the Arms of the Hospital in gold will be ONE SHILLING AND SIXPENCE.

Calendar of Coming Events.

September.

Sat. 24.—Messrs. Howse and Jacobson's take-in; Drs., F. R. Featherstone and C. B. Thompson; Cl., J. A. Glover.
Last day for applying to Registrar for form of entry for Final M.B. Lond.

Tues. 27.—Exam. for Entrance Scholarships begins.

Wed. 28.—Messrs. Davies-Colley and Symonds' take-in; Drs., J. C. Brockwell and E. W. Goble; Cl., J. M. Fortescue-Brickdale.

October.

Sat. 1.—G.H.R.F.C., I., Trial Game, home.
II. ditto.
G.H.A.F.C., I. ditto.
II. ditto.

Mon. 3.—Winter Session begins.
Opening night of Physical Society.
House Dinner, at 6 p.m. Dr. Pye-Smith in the chair.
Paper by W. H. Crosse, Esq., F.S.R.S., on "Nigeria," illustrated by lantern slides.

Tues. 4.—First Conjoint Exam. begins.
First part Camb. D.P.H. Exam. begins.

Wed. 5.—Messrs. Lucas and Lane's take-in; Drs. W. G. Stewart and D. P. Watson.
G.H.A.F.C., I., Trial Game, home.
II. ditto.

Th. 6.—Second Conjoint Exam. begins.

Sat. 8.—1.15 p.m. Clinical Lecture by Dr. Pye-Smith.
G.H.R.F.C., I., Kensington, home.
II., Kensington, away.
G.H.A.F.C., I., Trial Game, home.
II. ditto.

Guy's Hospital Gazette,

SEPTEMBER 24, 1898.

A Lay Sermon.

AGAIN it is October, and we are issuing the Student's Number at the opening of a new year. Happy may it be to you all. The GAZETTE is growing old, yet how well do we remember when we first entered Guy's Hospital, a very sacred day, and the impression made on our youthful fancy by the shade of its dingy portals. Boys as we were, just emancipated from school; and here, as we entered that dear grim old colonnade, and, as instantly divined, we were at school again, only more so, for had we not become a law unto ourselves in the school of responsibility, and that is a much sterner discipline than aught foregone, as anyone of us who has been first ward clerk, and then dresser or house-surgeon, well knows.

And it was the then house-surgeon, and the dresser for the week, standing at the entrance to the surgery, waiting for the surgeon—that snapshotted themselves indelibly upon some one or other of the sensitised films of memory. A tall, thin, dark young man stands against the doorpost on the right, dressed with great neatness, and with a smile for those around him that warmed one's somewhat shivering heart, even though it smiled not on us. This was the sympathetic thoughtful cultured man who has drawn freely of the wells both of sorrow and success since that day. On the left stands a man of a much sterner mien, a surgeon every inch of him, to whom the tyro's respectful and carefully kept distance lent fascination rather than enchantment; but verily a man to lean upon in an extremity as his many friends and patients know him now.

These were some of our standard-bearers then, we must look to it that as we follow on we pass as well. But lo, a stir! The surgeon enters the gate, and in a medley crowd we follow him into the ward, and then into the operating theatre

with a sort of shall-I-be-sick-or-sha'n't-I feeling which we had somehow, quite erroneously, come to think was the first issue to be raised in "walking the hospitals." A strange, almost magnetic attraction hurried one along—the interest comes afterwards—and we were glad to be well through it, to know the worst, to breathe freely again, and to be able to believe that, so far as outward seeming went, the self-chosen purpose of one's life could be fulfilled. But we must not pursue a reminiscence of this sort. It was the Then and Now that prompted it, and it is of that contrast we would speak.

Twenty years or so ago, anatomy, physiology, chemistry, medicine, surgery, medical jurisprudence and midwifery, constituted essentially the whole order of instruction. There were summer courses of lectures on pathology and comparative anatomy, but they were not compulsory. The teaching then was as nothing to what is done for the student now. To-day is really not long enough to fit in the number of classes and demonstrations that now attach to a much elaborated curriculum. And it is so also for the practical work in the out-patient room and in the wards. Thirty years ago there were no house-physicians and only one house-surgeon; now there are four of each and assistants also. Then there was no well-considered and regular method of reporting cases. Medical and surgical registrars had none of their present tutorial functions. Now the sources of information in touch with the student are multiplied many times. See to it that you use them.

Examinations—not examiners, who are really the most urbane and gentle of mankind, wanting to find out how much you know, not where your ignorance lies—are tyrants. And bear in mind you who are on the threshold, and when you hear talk, as you sometimes may, of their being too stiff, with the thought behind it that the day is coming when the wind will be more tempered to your own measure of your need, that examinations are themselves subject to natural law and must become more searching. It is certain that year by year the difficulty of entering the calling of medicine will become greater, and unless you are full of work, pause ere you commit yourself.

One may be allowed to hope that the course of study may ultimately be made more elastic than is the case now, for medicine is many sided, and it must learn to distinguish between veneer and solid wood, but solidity in some form, in the future, it will always ask and obtain from those who enter its ranks. But in advocating the use of the many means provided for your guidance, it is very necessary to insist that you must not forget their dangers. You are no longer, if you ever were, a goose to be stuffed. A fact, (and by-the-bye there are very few of those articles in medicine, at any rate that are not questionable), is of little use to you if it be kept as the one talent in a napkin; it must bring you in ten other talents if you would receive the bonus allotted to the faithful servant, and which no doubt means when applied by us—a success in the profession we have chosen. *Now* we are taught everything, in former times this was far from the case, but there was less danger then of forgetting that no teacher, however able, can do more than make it more easy for you to learn to teach yourselves; there was then more stimulus to, or at any rate leisure for, independent observation; less tendency to see things through other people's spectacles, which, however much we may wish to think otherwise, will never exactly fit us.

A medical student, then, should first of all be a determined worker—not a drudge, but a man of self-reliant, critical observation, and he must digest, not bolt, the food that is presented to him. His teachers are there to help him with their knowledge; they are also there to help him by their want of it, not only by the profit that mistakes bring, but by the inculcation of humility, for it has been well said that we all make mistakes, even the youngest of us.

And in this spirit you, who read this, we are glad to know, have entered at Guy's. Men enter or are entered at medical schools for divers reasons; one young man that we knew of was even entered by a father who had more money than wisdom, at a particular school "that he might associate with gentlemen"—monied men being *his* gentlemen,—and within two years his son was an outcast. But if we were asked to give a young man advice as to the choice of a school, we should unhesitatingly say, enter where you think you will see most; where, if there be a difference, there are least restrictions to obtaining a practical knowledge of disease; where, if there be a difference, the staff are most accessible to the student. Judged by such criteria Guy's has no fear of coming second in the honourable rivalry of the several schools.

And having entered, make the freest, the fullest use of the abundant opportunities that Guy's offers. As to the exact course of study you should pursue, our arsenical-looking Green Book, ("The Prospectus"—we beg its pardon), will give all information. But in due course

get into the wards, the out-patient room, and the post-mortem room—and *live* there. See everything; smell everything; touch everything; question everybody; discuss freely with your fellows; go and debate at the Physical Society; study not only disease but humanity in all the varied circumstances of life, and think, think, think, over all the sights and sounds and touch sensations that form the sum of your daily observations.

And to be able to work as you will need to, you must keep yourself in health. What, then, about holidays? Keep yourselves in health we say. Each man must be a law unto himself in this matter. One will require more exercise—another less. One form of recreation will better suit this one; another that; but none can have any difficulty at Guy's in obtaining adequate and pleasureable recreation — with the Pavy gymnasium; the Honor Oak Club ground; the various athletic teams, cricket, football, cycling, etc. Take up that which most suits you, and use it heartily but in moderation.

One thing you must *not* do. You cannot afford to take a long holiday at any time during the course of a short five or six years, at any rate after the first two years. But you will say there are regular vacations, two of most respectable duration, and that is true. The plum is there, but you must not pick it. They are entered in the curriculum, perhaps, to enable us to enjoy those highly pleasurable sensations that always come of a righteous self-denial. You will be holding appointments in the hospital, and our appointments are real ripe fruit, ready for consumption. You don't take a nap while you are eating an ice.

But in educating yourself you are drawing your stores of information from the sick. And it is often said by those who don't know, that the medical student grows so callous in the acquirement of knowledge, that he is unmindful of the interests of the patient whom he is supposed to tend. It is seldom indeed so,—nevertheless bear the reproach in mind, and never talk of a post-mortem over the bed of the sick, or use ugly terms such as cancer, of which he may know something of the meaning and will be only too ready to exaggerate. Be gentle in thought, as well as in word and in deed.

Well, then, it is sometimes asked of us "What chances of success have I?" Success or no is within you—it hardly lies in your environment—but this hint you may take with you in your honourable ambition: you may be a great operator; a great master in your knowledge of disease; you may possibly even achieve that lowest measure of repute that is embodied in a pile of accumulated gold, but you will never be a really great surgeon or physician unless in addition to all your skill you possess a genial and active sympathy for sorrow and suffering in whatever garb it may come before you. Cherish, then, this the supreme need of a doctor's life, and it requires no prophet to foretell that, when your day is done you will have attained that rarer and more ample guerdon:

> "But, oh for the touch of a vanished hand,
> And the sound of a voice that is still."

Responsibility.

THE beginning of a new year is not a seasonable time for cut-and-dried discourses on virtues or trials, but it seemed to us perhaps a fitting occasion for a few scattered, and of necessity, brief ideas on the vast subject of responsibility and its relation to men and things; ideas of no value or originality of thought but rather suggestive of the many aspects in which men who enter here will have to face their trials and show their grit, for responsibility is the burden that every man has to bear unceasingly throughout his whole life, from the moment that he obtains his diploma till such time as he shall leave his work, and in most cases his world too.

Responsibility not of business, or stocks and shares, but rather a more personal or human responsibility, and that of varying degrees and kinds, as from the burden of example in one's manner of living in some country village where the doctor and the parson are the only two persons of recognised and unaltering position, to the dread and pressing care of valuable lives in danger.

Consider also the dangers of giving an opinion, for it is in this division of his work that the general practitioner feels the strain of anxiety the most; a wrong decision or a momentary wandering from the narrow path of correct diagnosis or treatment remaining with him always, remembered and passed from mouth to mouth among his loquacious and censorious neighbours, destroying the hardly-built edifice of a practice in a day.

It will be acknowledged by all, therefore, that a man needs a very careful training to start him in this world fit to assume his responsible and heavy duties, or else he will only buy his wisdom by sad experience; and it is the good fortune of all who enter Guy's to have come to

a school of such unequalled stamp in its gradual education of men to positions of trust.

Every appointment in order gives the man his work, which he is expected to do to the best of his ability, as many other people are dependent on his small share in the general scheme. So in the beginning the labour of building up the famous reports of this hospital is entrusted to the ward clerks, who are encouraged to use their own minds and faculties of observation, and each of whom has his opportunity of adding his share to the sum total of the clinical knowledge which has been collected in these wards.

On his performance in this office depends the greater part of the hospital career of every man, and in years to come when succeeding generations of men look up his old reports, possibly when he is dead and gone and his own name but a memory, there will his work be, evident for good or bad, a witness to his worth.

And when a man reaches the stage of dresser and will do operations here under the guidance of his surgeon, that no man could dream of doing elsewhere, he will appreciate how much greater is the value of doing one operation himself and taking the responsibility of seeing his result than watching the most accomplished master of the art of Surgery do twenty of the same.

Or again, as Extern, when he will go out to cases entirely by himself with the responsibility of potential emergencies always with him, the short month of this experience must surely give him greater confidence in himself than a course of obstetric demonstrations with no responsibility at a lying-in hospital.

But the coveted posts at Guy's are those where responsibility falls most heavily, the resident appointments, appointments unrivalled for practical worth the whole world over; for it is the grand tradition of the staff at Guy's to leave their house-surgeons and house-physicians to act according to their own lights and see the fruit of their own actions as much as possible, and only step in when they need advice or help.

A house-surgeon at Guy's is no mere figurehead, but does more operative surgery and real hard work than men of a similar position elsewhere, and at very few hospitals are house-physicians given such a free hand in the treatment of their patients; and this very freedom is in itself of great value to the members of the staff under whom the men work, for they have the opportunity of seeing other men's treatment of cases, very possibly different from their own, but none the less successful; and this constant intercourse with fresh men and fresh ideas saves them from that pitfall to all teachers, that of getting into a groove.

But with this greater freedom comes greater responsibility, for if a man is given more work to do he must abide by the consequences of that work, and if he fails he must personally bear the burden of his own mistake, and we imagine there is no man who has done three months in the front surgery as Assistant House-Surgeon, who does not feel considerably older for the constant strain of difficult decisions among so many urgent cases with such a grievous scarcity of accommodation, and yet, for all the work and worry he is a better man, and with more reliance, at the end of his time.

And it is in this department that a man, thrown entirely on his own resources, comes first of all face to face with the outside public with all its unknowing criticism and ingratitude, and with it the occasional terrible ordeal of the public press, at times more ignorant than the public, seeking nothing but a catchpenny sensation, and entirely oblivious of continued good work done without advertisement. But when a man has finished here and gone through the mill like all his forerunners, he will be more sure of himself and his own opinion, and will be more cognizant of the many little traps in the medical man's path than if his conduct had been always supervised by a Resident Medical Officer, and it is the opportunity given to the men of holding so many responsible positions, that makes Guy's men what they are all the world over, experienced practical men.

Some Points in the History of the Hospital and its Medical School.

THE HOSPITAL.

GUY'S HOSPITAL is approaching its two-hundredth birthday. Every Guy's man is expected to know something of the history of his hospital's long and glorious past in order that he may worthily maintain its ancient traditions. Almost all that can now be learnt about former times is faithfully recorded in the "History of Guy's Hospital,"* and in this place we can but give the barest outline of its development.

In the centre of the front quadrangle of the hospital stands the statue of a benevolent-looking old gentleman. This is our founder, Thomas Guy, around whose monument Guy's men have assembled from time immemorial

* "History of Guy's Hospital." By Wilks and Bettany. Ward, Lock, Bowden & Co. 1892.

on New Year's Eve to sing "Auld Lang Syne." Guy was a printer and publisher, a Member of Parliament, and a Governor of St. Thomas's Hospital, which in his time occupied the site now filled by the London Bridge Railway Stations. Grieved, it is said, by the spectacle of patients of St. Thomas's Hospital, barely convalescent from serious illnesses or accidents, discharged to make room for more urgent cases, he decided to provide an asylum to which they could be transferred until entirely restored to health. Guy's Hospital is the outcome of this benevolent idea, which though no longer carried out in its wards is more efficiently provided for by numerous convalescent homes along the coast and in pleasant rural districts.

Guy died on the 27th of December, 1724, and on the sixth of the following month the first 60 patients were admitted into the hospital which was built and endowed at his "sole costs and charges." So ample was the original endowment that in the first twenty years after Guy's death the governors were able to make three large and important additions to the buildings and to complete those portions of the hospital which are at present known as Guy's House or the Surgical Building, and the Clinical Wards.

About a hundred years later, William Hunt, an influential governor of the hospital, set an example which it is hoped may some day be followed by one of his successors. Impressed by the great work of charity carried out in the hospital, he determined to devote his fortune to extend its usefulness, and made his former fellow-governors his residuary legatees, whereby they became possessed of a sum of £180,000. This access of wealth enabled the governors to build the great block which dwarfs Guy's original hospital, and is now known as Hunt s House, or the Medical Building. This work was not finally completed till 1871.

Not many years after the completion of Hunt's House, the remarkable depreciation in the value of agricultural land, which has had such a serious effect on property-holders throughout the kingdom, began to be felt by Guy's Hospital. After some years of financial embarrassment, the governors became convinced that the rental of their agricultural property would not for many years, if ever, rise to its former level, and determined to appeal to the public for pecuniary support. In May, 1896, the first festival dinner in connection with the charity was held, the chair being taken by H.R.H. the Prince of Wales, who announced that he had consented to become President of the Hospital, and to take part in the movement for the re-establishment of its fortunes. This movement is now being actively promoted, and one of the wards which has been temporally closed is in course of preparation to receive forty additional patients.

THE MEDICAL SCHOOL.

At the time when Thomas Guy founded the hospital, medical education was a very different thing from what it is at the present day. A student, having spent three or four years as an apprentice to a medical man, entered a hospital as a pupil of one of its surgeons or physicians, and supplemented the knowledge that he had gained in general practice by watching the treatment of the patients in the wards. With an increasing number of pupils it became necessary to give systematic lectures, and such were first delivered in Guy's Hospital in 1769. This date may therefore be looked upon as that of the foundation of the medical school. Guy's did not become a complete medical school, however, till nearly sixty years later. From 1769 till 1825, St. Thomas's and Guy's hospitals provided conjointly for the education of their students, the pupils passing from one to the other to their lectures and classes, some subjects being dealt with in the older institution and others in the younger. During this period of union the course of study at the hospitals was lengthened, and there began in a small way that systematic teaching by lectures and practical classes which is such a striking feature of present-day medical education. When, therefore, the union was dissolved, and Guy's had to arrange for the complete instruction of its students, it became necessary to provide school buildings for that purpose. The first block of buildings was opened in 1826, and from that time to the present an increasing number of students and a multiplication of lectures, classes and demonstrations, have demanded almost constant additions of laboratories, theatres, and workrooms. The years in which the most important additions have been made are 1850, 1871, 1872, 1878, 1879, 1888, 1890, 1892, and 1897. It is interesting to note that the most recent addition to the school buildings—the new physiological department opened last year—is but the first instalment of a comprehensive scheme for rebuilding the whole medical school in a more modern and convenient style, so that it appears likely that in the future no less activity will be shown than in the past in keeping the accommodation abreast of the demands.

It is not upon its buildings but upon the scientific work done within its walls that Guy's bases its claim to a share in the making of the medical history of the world. The researches, teaching, and example of men like Astley Cooper, Bright, Addison, Gull, Wilks, Moxon, Fagge, Wooldridge, and many another less well known to fame have made the medical school of Guy's Hospital what it is. The opportunities of the student in modern days are greater than in the past and it behoves each one to do his best, be it great or small, to add to the fame of his illustrious school.

Guy's Nurses' Choral Society.

A General Meeting of the Guy's Nurses' Choral Society will be held on Tuesday, September 27th, at 8.15 p.m., at the Matron's Home, when it is hoped that a large number of those interested will be present.

Arrangements for the coming session will be discussed, and officers elected.

Lectures* for Sessions 1898–99.

WINTER SESSION. OCTOBER—MARCH.

†	LECTURERS.		DAYS.					
Anatomy (1st & 2nd)	Mr. Clement Lucas and Mr. Lane ...	9	—	Tu	W	Th	Fri	—
Microscopical Pathology (3rd) ...	Mr. G. B. Smith and Mr. Pakes ...	9	—	Tu	—	—	Fri	—
Pathological Classes (3rd & 4th)	Dr. Shaw and Mr. G. B. Smith ...	9.30	M	—	W	—	—	Sat
Bacteriology (Oct. & Nov.) (4th)	Dr. Washbourn and Mr. Pakes ...	9.30	M	Tu	—	—	Fri	—
Medical Jurisprudence (January) (3rd & 4th)	Dr. Stevenson	10	—	Tu	—	Th	—	Sat
Practical Obstetrics (3rd & 4th)	Dr. Horrocks and Mr. Targett (Oct.) ...	4	—	Tu	—	—	—	—
Chemical Physiology (Jan.) (2nd)	Dr. Starling, Dr. Beddard & Mr. Spriggs	10	—	—	—	—	Fri	—
Biology and Botany (pre. sci.)...	Mr. Minchin and Dr. Stevens	10.30	—	—	W	—	Fri	—
Chemistry (1st and pre. sci.) ...	Mr. Groves...	12.15	—	Tu	—	Th	—	—
Practical Chemistry	Mr. Wade and Mr. Panting	10-12	—	Tu	—	Th	—	—
Advanced Practical Physiology (3rd)	Dr. Starling	11	M	—	W	—	—	—
Practical Medicine (3rd) ...	Dr. Fawcett	12	—	—	—	Th	—	—
Experimental Physics (pre. sci.)	Professor Reinold and Mr. Wade ...	12	M	—	—	—	Fri (2)	—
Chemical Physics (1st)	Professor Reinold	2	—	—	—	—	Fri	—
Practical Surgery (3rd)	Mr. Fagge	12	—	Tu	—	—	Fri	—
Physiology (2nd)	Dr. Washbourn and Dr. Starling ...	10	M	—	W	—	—	Sat
Clinical Medicine (3rd & 4th) ...	The Physicians	1.15	—	—	—	—	—	Sat
Surgery (3rd)	Mr. Howse and Mr. Davies-Colley ...	1.30	—	Tu	—	Th	Fri	—
Clinical Surgery (3rd & 4th) ...	The Surgeons	1.30	—	—	W	—	—	—
Elementary Biology (1st) ...	Dr. Stevens and Mr. Steward	2	M	—	—	Th	—	—
Mental Physiology (Oct. & Nov.) (3rd & 4th)	Dr. Savage and Dr. Hyslop	2	M	—	W	—	Fri	—
Morbid Anatomy (3rd & 4th) ...	Dr. Pitt and Dr. Perry	2.30	M	Tu	W	Th	Fri	Sat
Medicine (3rd)	Dr. Pye-Smith and Dr. Taylor	3	M	—	W	—	Fri	—
Ophthalmic Surgery (Jan.) (4th)	Mr. Higgens	3	—	—	W	—	—	—
Public Health (Jan.) (4th) ...	Dr. Sykes	4	M	—	—	—	Fri	—
Dental Surgery and Pathology...	Mr. Newland-Pedley	4	—	—	—	Th	—	—
Metallurgy	Mr. Groves	4	M	—	—	—	—	—
Dental Anatomy & Physiology...	Mr. Maggs	4.30	—	—	W	—	—	—

SUMMER SESSION. MAY—JULY.

†	LECTURERS.		DAYS.					
Midwifery (3rd)	Dr. Galabin and Dr. Horrocks ...	9	—	Tu	W	Th	—	—
Diseases of Women	Dr. Galabin	9	—	—	—	—	Fri	—
Pathology (3rd)	Dr. Pitt	9	—	—	—	—	—	Sat
Mental Diseases (3rd)	Dr. Savage	9.30	M	—	—	—	—	—
Microscopical Pathology (3rd) ...	Mr. G. B. Smith and Mr. Pakes ...	9	—	Tu	—	—	Fri	—
Bacteriology (May & June) (4th)	Dr. Washbourn	9.30	M	Tu	—	—	Fri	—
Practical Obstetrics (3rd) ...	Dr. Horrocks and Mr. Targett	4	—	Tu	—	—	—	—
Biology and Botany (pre. sci.) ...	Mr. Minchin and Dr. Stevens	10.30	—	—	W	—	Fri	—
Histology (1st)	Dr. Starling, Dr. Beddard and Mr. Spriggs	9.30-12	M	—	W	—	Fri	—
Practical Medicine (3rd) ...	Dr. Fawcett	12	—	—	—	Th	—	—
Experimental Physics (pre. sci.)	Professor Reinold and Mr. Wade ...	12	M	—	—	—	Fri (2)	—
Clinical Medicine (3rd & 4th) ...	The Assistant Physicians	1.30	—	—	W	—	—	—
Clinical Surgery (3rd & 4th) ...	The Assistant Surgeons	1.30	—	—	—	—	Fri	—
Clinical Gynæcology (3rd) ...	Dr. Galabin	1.30	—	Tu	—	—	—	—
Morbid Anatomy (3rd & 4th) ...	Dr. Pitt and Dr. Perry	2.30	M	Tu	W	Th	Fri	Sat
Materia Medica (2nd)	Dr. Hale White	2	M	—	W(3)	Th	—	—
Operative Dental Surgery ...	Mr. Badcock	11.45	—	—	—	—	—	Sat
Dental Mechanics	Mr. Wynne Rouw	4	—	Tu	—	—	—	—

* No effort has been made to include the many demonstrations or practical work.
† The numbers in this column refer to the years in which this course should be attended.

The Sciences.

ANATOMY AND THE DISSECTING ROOM.

How to begin Work.

THE first working day spent at Guy's hospital is always a memorable event. There is a feeling of strangeness, which is quite natural. We are but vaguely conscious of what is to be done, and blissfully indifferent how to set about it. The very names of the subjects we have been told to learn convey no meaning, and the school buildings, with their various class-rooms and theatres, are an unexplored country through which we travel as in a maze.

For the help of the new men, it is proposed to give such instructions as they may need in beginning the work of their first winter session at Guy's. It will be assumed that they have already decided what the general course of their study is to be, that is briefly, whether they are going in for the Preliminary Scientific examination of the London University or not. Information on these matters is readily obtained at the medical school office, and any student who is not clear in his mind as to the examination he has to prepare for should read carefully page 64 in the green book.

After the first few days men soon become familiar with the work, and learn from one another. But at first they have made no acquaintances, and all around them are strangers alike.

Monday, October 3rd.—There is no actual work done on this day, but each student should pay his guinea for material in the medical school office, and take the receipt across to the dissecting-room and present it to the demonstrators. He should then study the red book—which contains the rules of the dissecting-room—and purchase some instruments and the other paraphernalia therein indicated. Any spare time is well spent in learning where the museums, class-rooms, and theatres are situated. The ground plan at the front of the green book will show them at a glance, and serve as a very efficient guide.

Tuesday, October 4th.—At 9 o'clock in the morning the start is made, and we get our first introduction to the duties of hospital life at a lecture in the anatomical theatre, and at one o'clock a demonstration is given in the small theatre attached to the dissecting-room, both of which every new student is expected to attend.

To find a "part."

Look down the list of names on white cards which are suspended upon the wall of the dissecting-room opposite each subject or body. Be careful to take the proper side (right or left) which is allotted to you. If you fail to find your name on these cards, make yourself known and report the fact to one of the demonstrators present, who may be recognised by his white coat. The next thing is to obtain a bandage and cloth from the attendant (Hancock), who will be found in a room outside the dissecting-room. With these the "part" must be covered up at once to prevent the skin from drying. If the "part" is a limb, bandage it firmly from the hand or foot upwards as far as the bandage will go, and cover the remainder with a cloth, *but be careful to leave the metal ticket exposed to view.*

The Requisites for Dissection.

The following articles are essential, and must be purchased at once:—

a. Case of instruments. This should contain at least four knives, forceps, scissors, hooks, needle and blowpipe. Price 15s. to 18s., at Messrs. Down Bros., of St. Thomas's Street; or at Messrs. Hills & Co., of Newcomen Street.

b. Books. These are obtainable at Grattan's in the Borough, next door to the post-office. It is advisable to obtain either *Ellis's Demonstrations of Anatomy* (9s. 6d.), or, better, the more expensive *Cunningham's Practical Anatomy* (2 vols. 9s. 6d. each) for use in the dissecting-room, which show how to proceed and what is met with in the course of dissection; *and* one at least of the standard text-books, viz., Gray, Morris, or Quain. The inquirer will hear their merits compared at the introductory lecture and demonstration; if still in doubt he should consult personally one of the demonstrators, and take with him any old text-book he may possess for inspection and advice as to its use.

c. An apron and sleeves for the sake of protection and cleanliness. These are sold by Hancock. Any old coat may be worn under them. Instruments, books, apron and coat must be safely put away in a locker provided for the purpose; the key is obtained by making a deposit of 5s. at the medical school office. During the day hats and coats are kept at a special cloak-room near the dissecting-room.

d. A disarticulated skull and a half skeleton. (*See below.*)

How to Dissect.

The instructions given on this point in the text-books are by no means clear to one who has never done any dissecting in his life, and who does not know the meaning of half the scientific words in which the directions are given. He finds quite a new language in use, and no translation of it in the margin. Thus, he is told to "make an incision," instead of "cut"; to "reflect the integument," for "turn back the skin"; "anterior and posterior," instead of "in front and behind." Not a little of the difficulty and dulness attaching to anatomical descriptions depends on the need of a mental translation of the language in which they are written.

To deal fully with the skilful art of dissection is unnecessary here, and we will merely give such short directions as are needful for the work of the first two or three days. The objects of dissection are—firstly, to educate the sense of touch, and to teach the hand and the eye to work together in delicate manipulation; and secondly, to enable the student to see and handle the different structures that he reads about in his books. It is most decidedly not the object of dissection to lay bare the bone in the middle of the "part" in the shortest

possible time. That is butchery, not dissection. The following advice, then, may be given.

1. Cut through the skin along the lines given in the books.

2. Turn back *the skin only*, leaving the fat upon the body. This is done by holding the knife obliquely with its edge towards the skin.

3. Take away the fat carefully without damaging the dense white layer which covers the muscles.

4. Clean the surface of the muscle. To do this make the muscle taut by moving the limb, or pulling on it with hooks; then with the point of the knife clear away everything covering the muscle by working *with* its grain or fibre, *not* across the fibres.

5. Before taking any fresh step in your own dissection get a notion of the arrangement of the parts you are going to expose, either from another man's part, or from the wax model museum preparations.

6. Work very slowly at first. To turn back the skin carefully is quite enough to occupy the first day's work-time.

7. Cover the "part" up with a cloth before leaving it for the night.

The red book containing the rules of the dissecting-room will be found to contain a lot of useful information, which we give in full below, and should be read with care, and then kept always at hand.

OSTEOLOGY.

Usually considered a very dry subject; hence commonly studied in a stuffy museum after a heavy lunch with—the usual result. Like other branches of anatomy it must be learnt practically, by handling the bone, reading the description of it, and noting the various marks upon it, each one of which has its meaning. In order that the bones may be studied at home as well as at the hospital, it is very important that each student should possess them. Half-sets of osteology, that is, the bones of one side of the body with the spine and head, can be obtained second-hand at a very moderate outlay, and if carefully used they will at the end of the course readily fetch half the original cost, or even more. Some very useful half-sets (second-hand) are to be seen at Messrs. Millikin & Lawley's, 165, Strand, W.C., price 30s. If these are disposed of at the end of the second Conjoint examination for half the price, it follows that *the immense advantage of having the bones always at hand* while preparing for the examinations is obtainable at the expense of a few shillings.

In selecting a half-set of osteology it is well to have the guidance of a fellow-student who is familiar with them. See that the half-set is complete, and that each bone is of the *same* side. Avoid "the nice white bones," which dealers always charge extra for, and choose the rougher, better marked and dirtier ones. The preparation which makes them white, does away with many of the marks and ridges which have to be studied. With regard to the disarticulated skulls, try the separate bones and see whether they fit into each other properly, as it is not uncommon to find skulls offered for sale, the bones of which have come from different subjects, and hence cannot be articulated.

It may be necessary now that the "Bone" examination has been done away with at the College, to caution men against neglecting the subject during their first year. They will find the second year's work quite heavy enough as it is, and moreover may suffer the mortification of being spun in the Hospital Bone examination at the end of the first winter session, if they neglect the bones in their first month's work.

RULES OF THE DISSECTING-ROOM.

1. All first and second year's Students, and all those senior to the second year, who have not passed the Second Conjoint Examination, are expected to attend in the Dissecting-room on the first day of the Winter Session, between the hours of 1 and 4 p.m., or on the second day between the hours of 10 a.m. and 12 noon. Each Student must bring with him a voucher indicating that he has paid the special fee for material, which voucher must be handed to the Demonstrator in order that the Student's name may be enrolled in the appropriate class list.

2. The fee for material (which should be paid in the Medical School Office on or before the first day of the Winter Session, between the hours of 10 a.m. and 1 p.m.) is—

For each academic year:—

First Year's Students	25/-
Second Year's Students...	
*Students Senior to the Second Year but not yet through the Second Conjoint Examination	
Students who have passed the Second Conjoint Examination and are now reading for the First F.R.C.S. or Int. M.B... ...	10/6
Students going up for the L.D.S. Examination only	
Students who enter during May (fee for the Summer Session only)	

3. The Senior Demonstrator (Mr. Fripp) will meet the first year's Students on the second day of the Session at 1 p.m., and give them a demonstration to initiate them into the work of the dissecting-room. Immediately after this demonstration parts will be allotted to Students.

4. On the following day the Bone Classes, which are held by Mr. Steward and Mr. Handley, begin. Every Student must purchase a half skeleton and bring to the class the bone or bones which will form the subject of the demonstration. Regular attendance at these classes is compulsory until a Student has passed in Elementary Anatomy. A Student attending the class that is studying (A), (B), or (C), in Rule 8, will be allotted a part corresponding with the work of the class.

5. The Senior demonstrator will meet the second year's Students on the third day of the Session. The Second Conjoint Class demonstration given by

*This Fee must be paid by every such Student whether it is his intention to dissect or not.

Mr. Steward and Mr. Handley begin early in the following week.

6. No Student shall be enrolled in the Second Conjoint list or allowed to begin dissecting as a second year's Student until he has passed in Elementary Anatomy and in Biology and Chemistry at the First Conjoint Examination.

7. The notice-boards in the Dissecting-room should be examined daily throughout the Session. Here will be found class lists, notices of allotment of parts, announcements of vacancies for prosectors, arrangements for examinations, etc., and notices of alterations in standing arrangements. Every Student's name should appear in one of these class lists, and any Student failing to find his name should at once inform one of the Demonstrators.

8. A written examination is held just before the Christmas Vacation. Every first year's Student is required to attend and to answer the questions on one of the following groups:—

(A) The bones and ligaments of the head, and the bones, ligaments and muscles of the upper extremity; or

(B) The bones and ligaments of the spinal column and thorax, and pelvis, and the bones, ligaments and muscles of the lower extremity; or

(C) (*if he is taking the L.D.S. only*) The bones and muscles of the head, and the temporo-maxillary, and occipito-atlanto-axoid joints.

Every second year's Student is required to attend and to answer questions on—

The muscles, tendons, bones and ligaments of the whole body; and one of the following groups—

(α) The entire anatomy of the upper extremity and of the head and neck, including the brain and spinal cord; or

(β) The entire anatomy of the lower extremity and of the abdomen, pelvis and thorax; or

(γ) (*if he is taking the L.D.S. only*) The entire anatomy of the head and neck, excluding the brain.

9. A written Examination is held at the end of March. Every first year's Student (except L.D.S.) is required to attend and to answer questions on the muscles, bones and ligaments of the entire subject. Every second year's Student is required to attend and to answer questions on the anatomy of the entire subject.

10. The dissection of all parts allotted in October and November must be completed before Christmas, and on the second day after the recess new parts will be allotted, priority being given as far as possible to those Students who showed themselves most painstaking in their previous work. A first year's Student who, before Christmas, studied sub-division (A) in Rule 8, will now study sub-division (B); but in addition Every Student should, in this his second part try to master as much as possible of the vessels, nerves, etc.

11. The Senior Demonstrator holds classes throughout the Winter and Summer Sessions for (i.) Students preparing for the First F.R.C.S. and M.B. Examinations of the various Universities; (ii.) Students who, though they have completed their second year, have not yet passed the Second Conjoint Examination.

12. Every Student is advised to carry with him when in the Dissecting-room and Demonstration Theatre a pocket note-book and a set of coloured chalks.

13. Every week the dissections are examined systematically by the Demonstrators, and marks are allotted. The record thus kept of each Student's diligence in the Dissecting-room is taken into account in subsequently recommending to appointments in the wards.

14. A test examination is held about three weeks before each Second Conjoint Examination. Attendance at this examination is compulsory on all those who wish to present themselves for the Conjoint Examination.

15. During the first Summer Session, a Student who entered in October, and has passed the Elementary Anatomy and the Biology of the First Conjoint Examination, should learn the anatomy of the brain, the spinal cord, the heart, the lungs, the larynx and the liver. Demonstrations on these subjects are given in the Demonstrating Theatre at least once a week during the Summer Session.

16. Particulars of the examinations for the Michael Harris, Arthur Durham and Hilton Prizes, and for the Prizes for General Proficiency, will be found in the Prospectus of the Medical School, which may be obtained in the Medical School Office.

17. About twelve prosectors to the Lecturers on Anatomy are appointed annually (and from time to time a Prosector to the Royal College of Surgeons of England) from among those Students who have shown themselves most diligent in the Dissecting-room. Notices inviting applications for these appointments are posted in the Dissecting-room.

18. The metal ticket attached to each part must on no account be allowed to come off nor to be covered up by the bandage that each Student should apply to his part (if a limb); neglect of this rule renders the part liable to be forfeited. Apron and sleeves (2s. 6d.), bandages, cloths, air-pump, ointment, carbolic lotion, etc., can be obtained from the Dissecting-room porter.

19. No muscle, tendon, nerve, artery, or large vein, should be cut through, if by hooking it aside it is possible to reach and clean the parts lying on its deep surface.

20. No limb must be removed from the trunk except by one of the Demonstrators or Assistant Demonstrators, nor in any circumstances must any part of a subject be removed from the Dissecting-room.

21. Except when the Student responsible for a part is actually at work upon it, each part must rest constantly on the table of the subject to which it belongs. Neglect of this rule renders the part liable to be forfeited. When a Student considers he has finished the part, he must report the fact to one of the Demonstrators.

22. The subject is divided into five parts on each side :—

1. The Head and Neck.
2. Upper Extremity and Muscles connecting it with the Trunk.
3. Abdomen, with the Perinæum and interior of the Pelvis.
4. Lower Extremity.
5. The Thorax and Spinal Column; the dissection of which is not to commence until the fourteenth working day.

23. Students are not permitted to exchange or dispose of their parts, either before or after the commencement of dissection.

24. Any part, the dissection of which has not been begun within twenty-four hours from the time when the body is placed in the Dissecting-room, is liable to forfeiture. If a Student is unable to continue the dissection of the part which he has already begun, he must give notice *in writing* to one of the Demonstrators, who will make arrangements for its disposal. The Demonstrators will also dispose of any part, the dissection of which has been discontinued without their sanction for more than two working days.

25. The subject when brought in will be placed in the supine position, and will so remain during nine working days. On the tenth day a majority of the Students engaged upon it, and on the fourteenth day any one of them, may have it turned into the prone position. Five days later it may, if the majority so desire, be turned back again; and after six days in the prone position any one of the Dissectors may have it turned back. The time for the dissection of the perinæum is before 11 a.m. on the first ten days, and neither for this purpose nor for any other must the subject be turned out of the position indicated in this rule.

26. The Dissecting-room is open from 9 a.m. till 4.30 p.m., except on Saturdays, when it is closed at 2 p.m.

27. On applying at the Medical Office a locker may be obtained for a deposit of Five Shillings (which will be returned when the key is given up, provided that the locker is uninjured).

N.B.—The Anatomy part of the First Conjoint Examination has now ceased to be held at the Royal College of Surgeons, and its place is taken by an examination held at the Hospital in two parts—one just before the Christmas and the other just before the Easter recess.—*Vide* Rules 8 and 9.

DENTAL STUDENTS.

During their first winter session dental students are expected to dissect the head and neck and to study the bones and muscles of the head with the temporo-maxillary and cervical articulations upon which they are examined at Christmas. In addition, they should become acquainted with the main vessels, nerves, and special structures of these regions.

A dental student, on entry, must pay the fee for material at the medical school office, on October 1st, between 10 a.m. and 1 p.m., so that a part may be allotted to him at the earliest opportunity. He should obtain a copy of the rules of the dissecting-room, and study those paragraphs which specially concern him. He should be careful not to miss the demonstration given by Mr. Fripp to first year students, on Tuesday, October 4th, at 1 p.m.

Special bone classes are held for dental men, commencing early in November, the times of which will be duly announced on the notice-board in the dissecting-room.

It is very essential that the study of anatomy, physiology, and surgery should be prosecuted energetically from the outset, thus obviating the necessity for "cramming" these subjects when preparing for the final L.D.S. examination. Careful and patient dissection is the easiest way to learn Anatomy. An attempt to "cram" it from books is certain to result in disaster.

PHYSIOLOGY.

Physiology, which treats of the workings of the healthy body, and forms, therefore, the institutes of medicine and the necessary foundation of any rational mode of treatment of the body in disease, differs from its sister subject, Anatomy, in that it requires much greater intellectual effort for its acquisition, and a more thorough preliminary training for the comprehension of its doctrines. Physiology, in effect, consists in the application of the natural laws elicited by the researches of physicists and chemists to the explanation and description of its phenomena occurring in the living body, so that an acquaintance with the chief laws of physics and chemistry forms the necessary basis for the study of physiology. The difficulty and importance of this subject would seem to indicate, in the clearest possible manner, the necessity of pursuing its study throughout the short space of two years, which are devoted to the subjects that are preliminary to the work in the wards. Nevertheless, in consequence of the inept regulations of the bodies which govern the medical curriculum, six months of this precious time is wasted in acquiring a worthless smattering of something dignified by the title of biology. On this account, the student beginning his medical studies in October must give all his energies to getting up his biology in order to pass in it at the earliest possible opportunity, although he may profitably combine with the biology lectures and classes the reading of some elementary work on physiology, such as Huxley's *Elementary Physiology*, or the smaller work on the same subject by Foster and Shore. He is not advised to attend the physiology lectures at this time, and will not be signed up for them.

By the ordinary student the study of the subjects included under the heading Physiology is begun in the first summer session. During the whole of this session he must attend the classes in Practical Histology. These are held in the students' histological class-room

three times a week; each class lasts two hours, the first half-hour being taken up by a short lecture, in which the tissues to be studied in the following practical work are described. This lecture will be held in the physiological theatre. Students attending this course must provide themselves with a compound microscope,* certain mounting materials (a list of which can be obtained at the office), and with Schäfer's *Essentials of Histology*, which should be carefully studied in the intervals between the classes. The microscope must have two objectives, a $\frac{2}{3}$-inch and a $\frac{1}{6}$-inch, a nose-piece and an indicator fitted to one of the two eye-pieces. The following makers are recommended: Crouch, Zeiss, Ross, Leitz (English agent, Kanthack), Swift. From any of these latter firms a good microscope, with all necessary accessories, can be obtained for about £7; the microscope from inferior makers is worse than useless, and it is essential that the student should buy an instrument which will be of some use to him in future years, when as a practitioner of medicine he desires to examine tumours, urinary sediments, sputum, etc., for purposes of diagnosis.

At the end of the summer session an examination, written and practical, is held in histology. All students who have attended this class must enter for the examination. Only those who pass the examination will be allowed to attend the tutorial classes in physiology held during the second winter session in preparation for the examinations of the Conjoint Board. Those who fail at this examination will be allowed to enter for a similar examination at the following Christmas, but will not be able to present themselves for the second Conjoint under six months from the time at which they passed this examination.

During the second winter session the student must attend regularly the lectures on physiology held three times a week, on Mondays, Wednesdays, and Saturdays at 10 a.m. During the same time those who have passed the histology examination at the end of the previous session must attend the tutorial classes held by one of the demonstrators throughout the session. At the same time he must read up the subjects in some elementary text-book, such as Starling's *Elements of Human Physiology*, or Waller's *Text-book of Physiology*.

During the second half of the winter session, *i.e.*, from January to March, students must attend the class in practical chemical physiology, which is held once a week in the physiological chemical class-room. While attending this class, they are recommended to read up the subject in Halliburton's *Essentials of Chemical Physiology*, which is also used as the guide in the practical work.

Students who have been diligent in following this course of studies will be ready to enter for the second Conjoint examination at the end of this session. Shortly before this examination, a test examination is held by the demonstrators in order to judge of the fitness of the candidates. Those who fail to pass the second Conjoint at this time must attend the revision classes held by the demonstrators during the two or three months preceding the July and January examinations of the Conjoint Board.

*The demonstrators will be very pleased to advise any student in the purchase of a microscope. It must be distinctly understood that antiquated instruments, such as those sometimes handed down as an heirloom in a family of doctors, are absolutely useless.

Certain modifications in this course of studies is necessary for those who are going up for the M.B. of London or other Universities. Having passed their preliminary scientific before entering, they are free of the incubus of biology during their first winter session. They should therefore attend the physiological lectures during this session, at the same time studying the subject in Starling's *Physiology*. In their first summer they attend the histology classes, but should supplement Schäfer's *Essentials of Histology* by reading the fuller accounts of the subject contained in Quain's *Anatomy*. During their second winter, they should attend the class in advanced practical physiology, which is held twice a week, each lesson occupying between two and three hours. During this session they are recommended to read up the subject in Waller's *Physiology* and Bunge's *Physiological Chemistry*, using Halliburton's *Essentials* as the guide in the chemical part of the advanced practical physiology. This class should also be attended by candidates for the first F.R.C.S. examination, although in their case attendance may often be profitably postponed until the third winter session. The reading for this examination is similar to that required for the Intermediate M.B. of London.

Those who are desirous of obtaining honours at the Intermediate M.B. should supplement the course of reading already indicated with original papers in the *Journal of Physiology* and with parts of Gamgee's *Physiological Chemistry*. Such students will also find Stewart's *Manual of Physiology* and parts of Foster's *Physiology* extremely useful and suggestive.

Revision classes are held by the demonstrators during the two months preceding the first F.R.C.S. and first M.B. examinations for the special preparation of candidates for these examinations.

List of books recommended:—

FOR COLLEGE MEN.—Schäfer's Essentials of Histology; Starling's Elements of Human Physiology; Halliburton's Essentials of Chemical Physiology.

FOR LONDON MEN.—Waller's Text-book of Human Physiology; Bunge's Lectures on Physiological Chemistry; Histological and Embryological parts of Quain's Anatomy.

E. H. S.

BIOLOGY.

The Course of lectures and demonstrations for the requirements of students preparing for the first Conjoint examination is given in the long room, class room No. 2, at 2 p.m., Mondays and Thursdays. The practical class will be held immediately after the lecture, and the new student is reminded that it is most important for him to attend both lecture and practical class from the

very first, to obtain the knowledge in biology requisite for the Conjoint examination. The very closest attention to his work, more especially *in the practical part*, is necessary if the pupil would become familiar with a subject which, seemingly of not much value to him now, will be of no inconsiderable assistance in later work, particularly in the domain of morbid histology and bacteriology.

The first lecture will be given by Dr. Stevens, in the long room, class room No. 2, on *Monday, October 3rd.* For the practical class, the requisites, of which a complete list is given below, must be obtained *beforehand.* We recommend new men, with reference to the purchase of a microscope—perhaps the most important consideration in entering these classes—that it should be deferred until one of the demonstrators has been consulted. We may state that microscopes are not absolutely necessary for the early classes, so that the purchase of one may be safely withheld until full instructions have been received from the demonstrators.

The special course of lectures and demonstrations devoted to the Preliminary Scientific examination of London are held on Wednesdays and Fridays at 10.30 a.m. The first lecture will be given by Mr. Minchin on Wednesday, October 5th, in the biological class-room, No. 4, on the first floor of the pathological museum block of buildings. "Pre. Sci." men will require the set of requisites that are notified below.

With regard to this list, we have already referred to the "microscope." In purchasing a "dissecting case," students must understand that an ordinary (human) anatomical set is *all* that is required. The special "biological" set is by no means necessary for the elementary work required at Guy's, and is, therefore, a needless expense.

REQUISITES FOR THE PRACTICAL BIOLOGY CLASS.

Every student attending these classes must provide himself with a microscope fitted with a double nose-piece. Crouch's student's microscope with $\frac{2}{3}$rds and $\frac{1}{8}$th objectives, two eye-pieces and a double nose-piece, in mahogany case, price about £7 10s., is strongly recommended. It can be obtained from Mr. Crouch himself, or from Maw, Son & Thompson, Aldersgate Street. If a foreign pattern of microscope is preferred Zeiss's or Leitz's is to be recommended, and can be obtained of Stanley, London Bridge; R. Kanthack, 21, Golden Square, Regent Street, W., or of Baker, High Holborn. These microscopes are slightly more expensive than Crouch's. It will be necessary also to have a stoppered bottle (with glass rod) containing Canada Balsam, dissolved in xylol; a stoppered bottle containing xylol; three small white saucers with flat bottoms; three watch-glasses ground on convex surface; two section lifters; three needles in handles; a pair of microscope scissors (curved on the flat); $\frac{1}{2}$-oz. No. I $\frac{3}{4}$-inch cover glasses; a gross of glass slides; a packet of labels; a small piece of soft silk; fine curved forceps; a "Seeker"; an anatomical dissecting case; a razor for cutting sections.

CHEMISTRY AND PHYSICS.

It is impossible to acquire a knowledge of chemistry or physics without personal and practical contact, and Guy's men have, in the new laboratories, unusual facilities for this purpose.

Conjoint men entering now should pass in chemistry and physics next Easter, and should therefore attend the lectures in chemistry from October to March (Mr. Groves, Tuesday and Thursday at 12.15), and the lectures on physics from October to Christmas (Prof. Reinold, Friday at 2). They must be prepared to devote a large amount of time to laboratory work. The practical classes are held in the chemical laboratory twice a week (Mr. Wade and Dr. Panting, Tuesday and Thursday at 10 to 12), but students have access to their benches at all hours, and are advised to make free use of this privilege, if they wish to make satisfactory progress. Revision classes are held before the April examination, and special classes for referred candidates before those in January and July; admission to these classes is dependent on the student passing a satisfactory test examination.

Conjoint students are not required to study chemistry or physics after passing the first examination, unless they wish to take the diploma in public health, in which case they work for three months at the analysis of water, air, food, etc., in the public health laboratory (Mr. Pakes).

Dental students under the new regulations are required to go through the same course as the Conjoint men, and to pass the first Conjoint examination, but those under the old regulations need only attend the lectures and a three months' practical course (Dr. Panting, January to March).

Special courses have been arranged for most of the University examinations. Candidates for the Preliminary Scientific (M.B.) examination of the London University attend the same chemistry lectures as the Conjoint men, but the physics lectures are specially arranged (Prof. Reinold, Monday at 12, Friday at 2). The Preliminary Scientific class meets for work twice weekly in the chemical laboratory (Mr. Wade and Dr. Panting; winter, Tuesday and Thursday 10 to 12; summer, Tuesday and Friday 2 to 4), and twice weekly in the No. 1 physical laboratory (Mr. Panting: winter, Tuesday 2 to 4, Friday 3 to 4; summer, Monday and Thursday 2 to 4); but students are expected to spend all their spare time in one or other of the laboratories. It cannot be too often or too strongly urged that reading without laboratory work is mere waste of time. Tutorial classes are held weekly in both chemistry and physics, and are supplemented by revision classes during the term preceding each examination. Students intending to work for Honours in either subject should consult the demonstrators. A new and extended syllabus, both for Honours and for Pass, is now in operation.

Intermediate M.B. men who have just passed the Prel. Sci. should begin to work at organic chemistry not later than next May, earlier if there is room in the laboratory, and men who think of working for Honours should start at once. The attention of candidates is

drawn to the recent radical alterations in the syllabus, and especially to the fact that the practical examination now includes the preparation and recognition of typical organic compounds. The practical class meets twice weekly in the laboratory throughout the year (Mr. Wade: winter, Monday and Thurday 2 to 4; summer, Tuesday and Friday 2 to 4); and is supplemented by lectures and revision classes (Mr. Wade). A course of experimental lectures for beginners will commence on October 7th (Chemical Theatre, 10), and will be continued throughout the winter.

Students intending to present themselves for the Inter. M.B. next July* should have worked in the laboratory for nine months by that time, those who attended the course last summer, for instance, requiring to work for four months this winter and two months again next summer. Candidates for Honours next July should, of course, resume laboratory work at once; several alterations have been made in the syllabus of quantitative work.

Oxford, Cambridge or Durham students desiring to work at chemistry should communicate with the demonstrators.

The practical knowledge of toxicology required at the degree examinations of the London and other Universities may be obtained at classes held by Mr. Wade and Dr. Panting during the latter part of the winter and summer sessions. J. W.

PRACTICAL PHARMACY. MATERIA MEDICA.

These subjects are taught in the practical pharmacy class at the hospital dispensary, by Mr. Collier. This course meets the requirements of students preparing for the Conjoint examination in practical pharmacy, and the intermediate M.B. Lond. The study of the names, physical characters, and chemical properties of substances used in medicine, and preparations made from them, and the doses in which they may be given, requires some considerable amount of application and exercise of memory. The instruction given in the class is therefore very practical, and every assistance is given to the student by demonstrations, access to materia medica specimens, and *viva voce* examinations, in acquiring a sound knowledge of materia medica. The art of dispensing, the writing of prescriptions, and the methods of prescribing drugs, form also part of the instruction given in the practical pharmacy class. During the year there are three courses of three months each, so that the student can enter at the time most convenient to him.

PHARMACY, PHARMACOLOGY AND THERAPEUTICS.

Lectures are given during the summer session in the anatomical theatre, by Dr. Hale White. This course is intended to meet the requirements of students preparing for the third Conjoint examination in pharmacology and therapeutics, for the intermediate M.B. and final M.B. Lond., and the third M.B. Cambridge. C.

* The examination now commences on the *first Monday in July*.

MEDICINE.

Medicine lectures are held on Mondays, Wednesdays and Fridays, at 3 p.m., in the anatomical theatre, throughout the winter session, by Dr. Pye-Smith and Dr. Taylor. The introductory lecture will be given by Dr. Taylor, on Wednesday, October 7th, who will then proceed to discuss "Fever, Contagion, and Specific Diseases."

A clinical lecture is delivered every Saturday, at 1.15 p.m., in the physiological theatre, the first of which will be given by Dr. Pye-Smith, on Saturday, October 8th. These lectures are held at 1.15, so as to enable footballers to attend, and they finish in time for them to catch the 2.23 train to Honor Oak Park.

In addition to the above course, Dr. Bryant holds revision classes for six weeks before the final Conjoint examinations in January, April, and July, for the benefit of students desirous of presenting themselves for the final examination in Medicine.

THE MEDICAL WARDS.

Clinical instruction in medicine is given in the medical wards to the medical ward clerks and other students who choose to be present, by the physicians, who visit their cases from 2 to 5 p.m., and by the medical registrar in the mornings from 10 a.m. to 1 p.m. There are two male wards, Philip and Stephen, each containing forty beds, and one female ward, Mary, containing fifty beds and six cots. The latter is divided into four divisions, each physician taking one division. Dr. Pye-Smith and Dr. Goodhart divide the beds in Philip ward between them, and Dr. Taylor and Dr. Hale White, those in Stephen ward. On Mondays and Thursdays the wards are visited in the afternoon by all the physicians; on Tuesdays by Dr. Goodhart and Dr. Hale White; on Fridays by Dr. Taylor, Dr. Goodhart and Dr. Hale White, and on Saturdays by Dr. Pye-Smith. The medical registrar sees new cases in all the wards on Monday and Thursday mornings; on Tuesday, Dr. Taylor's cases; on Wednesday, Dr. Goodhart's; on Friday, Dr. Hale White's, and on Saturday, Dr. Pye-Smith's. Thirty-six medical ward clerks are appointed every three months, and are eligible for re-appointment at the end of this time for a further period of three months, the extension being given to those who have shown the most care and diligence in the discharge of their duties.

1. *Case-taking.*—Reports are made by the medical ward clerks on all the cases admitted to the wards, under the supervision of the medical registrar, who instructs the clerks in the mornings, in the method of case-taking, and the physical examination of patients. Special report sheets are kept for this purpose in the wards; on the front page, spaces for the name, age, occupation,

address of patient, ward, number of bed, physician, date and references to former admissions, if any, must be filled in; the report itself must be then started on the next page, by recording the most prominent symptoms for which the patient was admitted, *e.g.*, "The patient was admitted for hæmoptysis, ascites, vomiting," or as the case may be. If the patient has been an in-patient before, the old report must be looked up in the registrar's room, which is in the new building, on the right-hand side of the stairs leading to the medical wards, the key of this room being hung up behind the door of the Eye wards opposite. Since the year 1888, an index of all the patients' names has been made a separate volume for each year, and they will be found in this room on the table. Having found the patient's name, a letter and a number will be found after it; the former is the initial letter of the physician, the latter the number of the report in that physician's volume of reports for that year, *e.g.*: if a patient had been in the medical wards in 1890, and the name is found in the index with P.S. 100, after it, it would mean that he was under Dr. Pye-Smith, and his report would be number 100 in Dr. Pye-Smith's volume of reports for 1890. The clinical reports for the year are all bound together, and the letter C refers to the clinical volume. If the patient has been in the hospital before, during the current year, his report can be obtained by applying to the medical registrar. If he comes under the same physician the report must be continued; if under a different physician, an extract must be made and a new report commenced. Before the year 1888 an index of names will be found at the commencement of each volume.

The old report having been found, an extract must be made, and the diagnosis then arrived at inserted in the new report. The condition of the patient since his last discharge from the hospital must then be noted; then the commencement of the present illness, with the symptoms and the date (not the name of the day only) of their onset, and the treatment before admission. Supposing there had been no previous admission, after stating the leading symptoms for which the patient was admitted, a description of his previous manner of life, occupation, travels, etc., must be noted; then his family history, especially in diseases of the nervous system, gout, rheumatism, phthisis, etc.; then a history of previous illnesses, with dates, and then of his present illness, as above described; and lastly, the condition on admission. This last-mentioned is the most important, and should be done as soon as possible. If the clerk has not seen the case on admission, the necessary details may be obtained from the house-physician. The condition on admission should be commenced by noting the pulse and respiration rate, and the temperature, and general appearance of the patient; this should be followed by a description of the system primarily affected, then the system most likely to be affected by complications, *e.g.*, in a case of acute rheumatism first describe the articular, then the circulatory, respiratory, cutaneous, alimentary and nervous systems. When describing physical signs the results of the examination should be arranged as far as possible under the headings Inspection, Palpation, Percussion and Auscultation, and it should always be remembered to use the eyes before the hands, and the hands before the stethoscope. In acute cases a daily record of the physical signs, symptoms, and the general condition of the patient must be kept. In renal cases a daily examination of the urine must be made and the result noted on charts provided for this purpose. In all cases the treatment written on the bed-letters must be copied into the reports. Observations made by the physicians on their rounds should be reported, great care being taken not to misinterpret them.

When the patient leaves the hospital a description of his condition on the day of discharge must be noted, and the report concluded with a short epitome of the leading features of the case. If the patient dies, an abstract of the post-mortem report, which can be obtained in the post-mortem room, must be inserted. When the report is completed, it must be taken to the medical registrar's room.

2. *Temperatures.*—The temperature of the patients must be taken and noted every morning by their respective clerks. Evening temperatures are taken by the clerks in turn; the dates of this duty will be found on the notice-board in the central hall of Mary ward. The temperatures to be taken will be put on a card hanging on the wall in each division.

3. *Classes.*—On Thursdays, classes are held for all the medical ward clerks at 12 o'clock, in the surgical class room, on the application of anatomy to medicine, the methods of medical diagnosis, and the explanation and interpretation of physical signs. On Mondays, at 12.15, classes are held in the chemical laboratory for Dr. Goodhart's and Dr. Hale White's clerks; and on Tuesdays, at 2 o'clock, for Dr. Taylor's and Dr. Pye-Smith's clerks, when practical demonstrations on the examination of urine, blood, sputum, etc., and on the use of the various instruments required for clinical investigations are given by the medical registrar.

4. *Beds.*—The arrangement of beds will be found on the notice-board in Mary ward.

5. *The Clinical Laboratory* (door opposite the lift in the new building), is open to medical ward clerks between 10 and 1, for any special clinical investigation and for the examination of sputum. The key can be obtained from the medical registrar, to whom also application for any special apparatus or reagents must be made.

6. *Medical instruments.* — Instruments for clinical investigations — hæmocytometer, hæmoglobinometer, perimeter, spectroscope—are under the charge of the medical registrar, and can be obtained from him on application.

7. Four clinical assistants are appointed every three months, commencing February, May, August and November, from those students who have already held the appointment of medical ward clerk. It is their duty to aid the junior ward clerks in the preparation of their

reports, to assist the registrar, and to carry out and superintend clinical investigations required by the physicians.

A few practical hints:—Medical ward clerks should, first of all, make themselves familiar with the normal physical signs, *e g.*, the normal shape of the chest, the normal vesicular murmur, the normal cardiac sounds, etc., and then with the physical signs of disease, their mode of production and their special import. It will be found useful, first of all, to read a book on physical diagnosis, such as *Hutchison and Rainey's Clinical Methods*, or Gibson and Russell's *Outlines of Physical Diagnosis.*

As a text-book Taylor's *Medicine* cannot be improved upon. Do not start at the first page and read straight through, but read up and endeavour to understand your own cases. When this has been done, use your colleague's cases in the same manner. *Do not be rough with your patients; percuss and palpate gently. Do not sit up a patient suffering from typhoid to examine his back. Do not percuss the chest of a patient suffering from hæmoptysis. Do not test the knee-jerks of a patient suffering from acute rheumatism; and if you sit on his bed, look before you sit. Do not discuss with your colleagues in the patient's hearing the prognosis of the case if it be serious, or the probable post-mortem appearances of his organs. Remember that your patient is ill, and imagine yourself in like position. You will then treat him with the kindness and consideration he deserves.*

M. R.

PATHOLOGY.

The large number of courses of instruction in pathology given in the school leads to some uncertainty in the student's mind as to the order and period of the curriculum in which they should be taken. Pathology is one of the few good things of which it is impossible to have too much, and probably the best advice that can be given to a student who has passed his second Conjoint or Intermediate M.B. is to take the instruction in pathology which is offered to him as early and often as possible. Most of the instruction in pathology is given in the early morning so that it shall clash as little as possible with work in the wards, and it is rarely advisable to postpone attending a course till the time arrives, which many seem to expect but fortunately seldom reach, when ward duties shall be less exacting than they are at first. A man who leaves the dissecting-room in April should begin to attend Dr. Pitt's systematic lectures on pathology in the following summer session (Anatomical theatre, Saturdays, at 9) where he will be introduced to the great principles underlying pathological processes, and will learn something of the theories of disease, which will enable him to understand the facts revealed to him in the post-mortem room. He should remember that this course of lectures is not completed in one year, and that if he attends the lectures for three consecutive years he will each time hear different subjects treated of. If it is in the summer session that a student is released from his anatomical studies, he should begin to learn pathology at the winter demonstrations (Dr. Shaw and Mr. Bellingham Smith, Monday, Wednesday and Saturday, 9.30, in class-room No. 2). Here he will be introduced to the treasures of the pathological museum. Selected specimens will be brought from the shelves of the museum for his inspection, and the effects of pathological changes upon the various organs of the body will be demonstrated. The subject is roughly divided into medical and surgical pathology, two days a week being devoted to the former and one to the latter. The whole course occupies two years. At the end of each half-hour demonstration on museum preparations, a *viva-voce* examination is held on typical recent specimens collected from the post-mortem room and operating theatre.

Valuable as is the instruction afforded by these systematic lectures and demonstrations they must on no account be allowed to take the place of the daily demonstrations of Morbid Anatomy (Dr. Pitt and Dr. Perry, 2 p.m.) in the post-mortem room. Here a student gains information on the relative distribution of morbid processes throughout the body, and learns to verify the accuracy of his observations at the bedside. No ward clerk must on any account neglect to follow the fatal cases to the post-mortem room, and throughout a student's career there is probably no more profitable way of spending an afternoon unappropriated to routine duty than in watching post-mortem examinations. It is not always possible to find time to hold the appointment of post-mortem clerk, but whenever it is the appointment should be held. The man who misses the opportunity while he is at the hospital of becoming acquainted with the many difficulties that may be encountered in making a post-mortem is sure to regret it afterwards.

The practical use of the microscope in solely pathological problems should be learnt as early as possible. With this object the course of Microscopical Pathology (Mr. Bellingham Smith and Mr. Pakes, Tuesday and Friday at 9 in the New Histological Laboratory) should be attended in the first winter session after the student gets into the wards. Here he will gain his first instruction in practical Bacteriology, which he will have constant opportunities of making use of in the wards. Here he will also amplify the knowledge he has already acquired, in the course of Normal Histology, of section cutting and staining, and have demonstrated to him the microscopical appearances of tumours and diseased tissues. A man cannot often find time to attend this course more than once, but he should attend it early in his career and work hard to learn enough about technique to enable him to afterwards examine specimens that constantly come in his way while holding senior appointments. Morbid histology and bacteriology are very engrossing studies, and many good men fight shy of them on account of the amount of time they fear they will "waste" over them. But a man of method can generally find a good many spare moments to devote to this work without seriously interfering with his

reading, and he who acquires this hobby will find it a useful one to ride when he has accomplished his examinations and is waiting for patients.

BACTERIOLOGY.

The compulsory course in bacteriology forms part of that in microscopical pathology. This year, as last year, the first two months will be occupied with this subject. The rudiments of the science are taught; the methods of staining sputum, pus, etc., to demonstrate bacteria; the methods of collection of morbid products for bacteriological investigation; in fact the technique of the examinations which can be undertaken in the wards.

Two optional courses are also held. These form part of the course for the D.P.H. Examinations, but may be taken quite independently of that examination.

These begin in October and May respectively, and last for upwards of two months. This course consists of lectures and demonstrations which include the morphology and life-history of the pathogenic germs and the diseases to which they give rise; the examination of morbid secretions and excretions, water, air, protozoa, etc.; susceptibility, immunity, etc. The students are instructed in the practical details of media making, culture, staining, etc., and they examine the more common pathogenic and non-pathogenic bacteria.

ANÆSTHETICS.

Lectures and demonstrations are given by Mr. Tom Bird and Mr. Rowell on the use and administration of anæsthetics; they are open to men who have passed the Second Conjoint examination or its equivalent, and to dental students in their second year. The post of "anæsthetic clerk," of one month's duration, is open to students only who have attended the lectures and demonstrations.

SURGERY.

Lectures are held three times a week, on Tuesdays, Thursdays and Fridays, in the anatomical theatre, by Mr. Howse (1.30) or Mr. Davies-Colley (9.30). Mr. Howse for the first part will lecture on "General Surgery," commencing on Thursday, October 6th. Clinical lectures are given on Wednesdays, at 1.30 in the anatomical theatre, by the surgeons. The first will probably be given by Mr. Howse, on Wednesday, October 5th.

Mr. Dunn, six weeks before the final Conjoint examinations in January, April and July will hold "Revision Classes," upon which attendance is voluntary. Only those desiring to present themselves for examination are expected to attend.

Mr. Dunn will hold a course of "Operative Surgery" for final M.B. and Fellowship men in October, of which further notice will be given. The course for the requirements of the Conjoint Board will be held in January, 1899, and the fee of 10s. 6d. should be paid not later than December 18th. Names of students desirous of attending the M.B. course should be left at the medical office *before* the end of September. Mr. Higgens will lecture during January to March on "Ophthalmic Surgery," on Wednesday, at 3 p.m., in the ophthalmic operating theatre. The lectures must be attended after passing the second Conjoint examination before admission to the final Conjoint.

THE SURGICAL WARDS.

In the surgical wards there is a division of labour, and corresponding to this division, the appointments fall into two classes—clerking and dressing. The student's first introduction to clinical work is as a clerk in the surgical wards, and it is not unlikely that he may, on his first entry, be a trifle discouraged. The reasons for this are obvious. Entirely ignorant of surgery and even of the terms in common use, he is at once required to write full accounts of the cases admitted to the wards. He will find, however, that by paying attention to the advice we give him, that his difficulties will be found to be anything but insurmountable.

Being the junior appointment in the hospital, there is a tendency in the minds of some, and a little more than a tendency in the minds of others to belittle the post. This is unjust, and is the result of ignorance of the real functions of the surgical clerk. What the medical clerk is to the medical side, the surgical clerk is to the surgical side. The post is junior in point of time, but does not necessarily carry with it any stigma of inferiority. Their duties are identical: the preparation of the permanent hospital records of the cases admitted to the wards. What difference there is consists of this: the machinery of the medical side is less complicated than that on the surgical; whereas the whole of the work in the medical wards falls on the clerk, in the surgical wards it has been found advisable to specialise and to separate—for the sake of greater proficiency—the duties of clerking and dressing. This separation has, on the whole, been justified by the results, the chief difficulty being the dependency of the clerk on the dresser for many details of importance. Dressers should, therefore, remember that from them the hospital expects such assistance as will render the reports as complete as they can be made. On the clerk, however, rests the responsibility, and the excellence of his reports is a sure indication of smooth working and mutual assistance in the firm to which he belongs.

The recent appointment of an overseer to each firm of clerks in the person of a clinical assistant in the surgical wards has been of inestimable value, primarily to the clerks, secondarily to the whole firm. The clinical assistant should be the immediate "ear" of all his clerks, to instruct them of their duties in the wards, also relieving the surgical registrar of many details in the filling in omissions of the reports of his firm.

We do not wish to exalt the clerk unduly, but to insist merely that in his work the same care and attention to detail, the same knowledge of surgery and human nature are as necessary as in other appointments. Let him bear in mind that to him is given by the hospital the task of keeping its records. These are bound and kept, and by his

work thus perpetually in evidence a man is judged. Bad reports are a lasting disgrace; good reports a lasting honour. The importance of good careful work by the clerks cannot be over-estimated. In the nature of things it cannot be perfect, but it must be as perfect as he can make it. By his first work in the wards he will be judged, and he will find that it is very hard to live down a bad clerkship. At the same time that he bears in mind the difficulties and responsibilities of his post, he should remember that he is a junior, and that any assistance he can lend his seniors should be offered ungrudgingly, and in return for this he will undoubtedly meet with that consolation and help in his work which is so necessary. There is no loss of dignity sustained in carrying screens to patients, or in the thousand and one small opportunities which present of helping the other workers in the wards.

To the dressers we would submit that the performance of dressing is no part of a clerk's duty, and that it is no kindness to him to request him to undertake what he cannot from his position with good grace refuse, and what nevertheless he is unfitted to do.

The work of the firm, as a whole, should be the interest of each individual member of it. Pride should be taken not only in its splinting and dressing, but also in its reporting. A good house-surgeon and a good dresser will see that the reports are not below the level of those of other firms, for as they represent the work of the firm the individual members should see that they give a fair and accurate idea of that work. The clerk, aided by the clinical assistant, from this point of view is to be regarded as the mouthpiece of the firm to succeeding generations. The firm should see that he represents it fairly.

The clerk as soon as he is appointed, should find out from the surgical registrar to whom he is appointed. A few days before taking over the work he should learn from his predecessor what he can about the cases he is to take charge of, so that the work may be continued as nearly as possible without a break. At the present time there is an entire change of clerks every three months, but in the way indicated above, the break in the work may be obviated to some extent. He should learn quickly to take accurate temperatures, and pulse and respiration rates, and test urine, for without any exception the temperature, pulse and respiration rates, and condition of the urine must be included in the notes of every case on admission. The surgical registrar sees every new case with the clerk on the morning after admission, when he expects a history of every case to be ready. This, if vague, is useless. All symptoms should be set down in exact order, with the dates of their appearance. The exactness in detail is of the highest importance, and is a measure of the care with which the clerk has done his work.

He should have a note-book, and should put down in it everything about the case that he can obtain from the surgeon, house-surgeon, clinical assistant, and dresser. This should be copied into the report as soon as possible. We would impress on each clerk the value of seeing everything done by the dressers or house-surgeon—the operations, putting up fractures, especially when done at night in take-in week, and this should apply to manipulations on every case under the surgeon, and not only to the cases which the individual clerk has to report—much may be learnt in this way which otherwise can only later be gathered with much greater effort.

A new departure was made last year in the Practical Surgery Classes, which are in the hands of the Surgical Registrar, who gives four courses a year, each beginning on the appointment of the new surgical ward clerks, and especially designed for their instruction in all matters related to that appointment.

Lists of the duties appertaining to each appointment are supplied to the students, and these are to be carefully followed out. The hospital not only expects this, but insists on it. We have laid stress so far on the appointment of surgical ward clerk, as it is the first post that the student holds, and because he is so often quite unaware of the objects of the appointment.

He will in time become a dresser, and will by that time have learnt the traditions that underlie his office. He should, before accepting office, have acquired most thoroughly the principles of aseptic surgery, and, on no account, ever depart from them subsequently. Let soap and water be his sheet anchor.

The surgical wards are visited every day by the surgeons and assistant surgeons at 1.45. Tuesdays and Fridays are reserved for operations, notice of which has been posted in the colonnade. The surgeons are assisted at the operation by the dressers, and no others should stand about in the well of the theatre, the only exception being the particular ward clerk to the case. With due diffidence we should like to hint that the front seats reserved for the staff and for visitors were never intended to be used as a footstool. The habit of sitting perched along the front rail is one of recent growth only, and in the interest of the patient, the operator, and those watching the operation, is to be deprecated.

Although we believe there is no rule which prevents freshmen attending operations and clinical demonstrations, we would point out that such a course of action is useless to them, and is not encouraged by the authorities.

Finally, we should like to repeat that although specialization has provided a clerk responsible for the drawing up of the hospital records, yet as this report is an account of the work performed by the firm as a whole, it touches the honour of everyone in it that the report should be an accurate statement of the work done. The firm should be considered the entity, each separate member of which fulfils his own function, each at the same time being dependent on the others for the smooth, even working of the whole.

S. R.

DAYS AND HOURS OF ATTENDANCE ON HOSPITAL PRACTICE.

Accidents and urgent cases of all kinds are admitted by the St. Thomas's Street entrance at any time of the day or night.

THE WARDS.

Medical Wards. — Dr. Pye-Smith (1.30), Mondays, Thursdays, and Saturdays. Dr. Taylor (1.30), Mondays, Thursdays, and Fridays. Dr. Goodhart (1.30), Mondays, Tuesdays, Thursdays, and Fridays. Dr. Hale White (1.30), Mondays, Tuesdays, Thursdays, and Fridays.

Surgical Wards.—Mr. Howse (1.30), Wednesdays and Saturdays. Mr. Davies-Colley (1.30), Mondays and Thursdays. Mr. Lucas (1.30), Mondays and Thursdays. Mr. Golding-Bird (1.30), Mondays and Thursdays. Operations (1.30), Tuesdays and Fridays.

Obstetric Ward.—Dr. Galabin (1.30), Mondays and Fridays. Dr. Horrocks (1.30), Tuesdays and Fridays.

Ophthalmic.—Mr. Higgens (1.30), Fridays. Mr. Brailey (1.30), Tuesdays. Operations (1.30), Mondays and Thursdays.

THE OUT-PATIENT DEPARTMENT.

The days and hours of attendance in the Out-Patient Department of the hospital are as follows:—

Medical Cases.—Dr. Pitt (12.30), Mondays. Dr. Shaw (12.30), Fridays. Dr. Washbourn (12.30), Wednesdays.

Surgical Cases.—Mr. Jacobson (12.30), Wednesdays. Mr. Symonds (12.30), Thursdays. Mr. Lane (12.30), Mondays. Mr. Dunn (12.30), Saturdays.

Obstetric. — Dr. Horrocks (12.30), Thursdays and Saturdays.

Ophthalmic.—Mr. Higgens (1.30), Tuesdays. Mr. Brailey (1.30), Tuesdays and Fridays.

Dental.—The Dental Staff (9), every week-day.

Aural.—Mr. Purves (1), Tuesdays.

Skin.—Dr. Perry (1), Tuesdays.

Throat.—Mr. Symonds (2), Fridays.

Electricity.—Dr. Pitt (1.30), Wednesdays and Thursdays.

DENTAL SCHOOL.

The dental student is supplied at the medical office with the Prospectus, Standing Orders, Clubs' Union Book, Calendar and List of Instruments.

If these pamphlets are carefully perused the student will become well acquainted with the general arrangements of the school, and the scope of the work upon which he will be engaged during his studentship.

It will first be necessary for him to purchase his *instruments* at one of the dental depôts, and to satisfy himself that he has been supplied with those which are described in the hospital list.

It may appear to the uninitiated that the cost is great, but this is not really the case, as the instruments will be useful to him throughout the whole of his professional life.

Probationary work upon the phantom head will next occupy the freshman's time for about two months. This operative course is very comprehensive, and includes most of the conservative operations that the student will subsequently perform on patients, namely, gold and other fillings, crowns, inlays, and the treatment of devitalized and septic teeth. If the manipulations upon the dummy are done in a thorough manner, a capital ground work of dental practice will be acquired.

Operative skill of a high order is now demanded by the staff, the Royal College of Surgeons, and the public, which latter will ultimately derive the benefit.

Dentistry, being a speciality of surgery, must also be studied from its scientific aspect, hence it is that lectures upon the anatomy of the teeth and their diseases are compulsory.

The man of average ability will find that his brain as well as his hands needs training, and that all his energies will be required to really master the science and art of dental surgery during the minimum of two years required by the Royal College of Surgeons. In passing, it may be mentioned that the facilities at Guy's are unsurpassed in London, as it is the only hospital where all the special and general lectures are given in addition to the practice of dentistry.

The student is advised to do his *dissections* early in the session. His time will be less occupied at this period, and he could not be the means of conveying septic infection from the dissecting room to patients, which might possibly occur if dissections are deferred until he is permitted to operate upon the living subject.

The Out-patients' department—surgical and dental—must never be neglected, and all available spare time can be profitably spent here. He should take notes of all interesting cases, and bring them before the Dental Society for discussion.

The advantages of joining the *Clubs' Union* are too obvious for comment. Some of the societies included in the union are intended for the training of the mind, whilst others aim at the development of the body, and it is with justifiable pride that Guy's men strive to excel in physical as well as in mental culture.

The library contains all the standard medical and dental works, and the current periodical literature. Reference works can here be consulted, and many of the books can be borrowed under certain necessary restrictions. The text-books in use at Guy's are recommended by the various lecturers, and a list is also published in the prospectus.

If a student at any time needs advice regarding his work he should consult the Dean, or any member of the dental staff, each or all of whom will be glad to help him.

M.

Pass List.

University of Durham.

SECOND EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.

H. W. Dudgeon, F. W. Sime.

FIRST EXAMINATION FOR THE DEGREE OF BACHELOR IN MEDICINE.

ENTIRE EXAMINATION.—Reginald Moyle.

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GUY'S HOSPITAL

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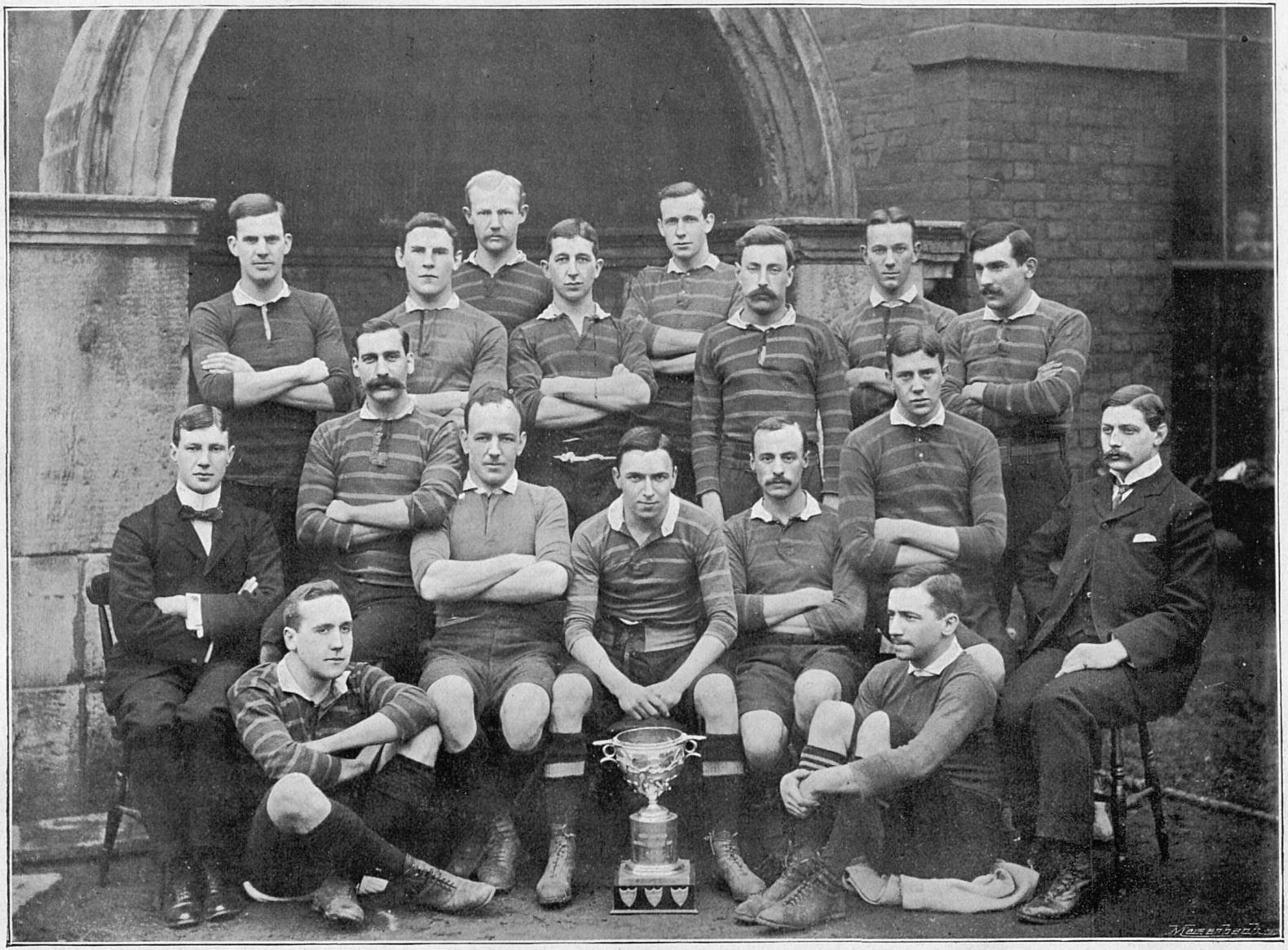


A. C RANSFORD. F. G. GIBSON. C. T. HILTON. R. C. MULLINS. F. C. WETHERELL, (Capt.) F. L. RAE. F. R. FEATHERSTONE. M. C. WETHERELL. H. V. BAGSHAWE.

GUY'S HOSPITAL RUGBY FOOTBALL CLUB.—Winners of the Inter-Hospital Cup, 1898.

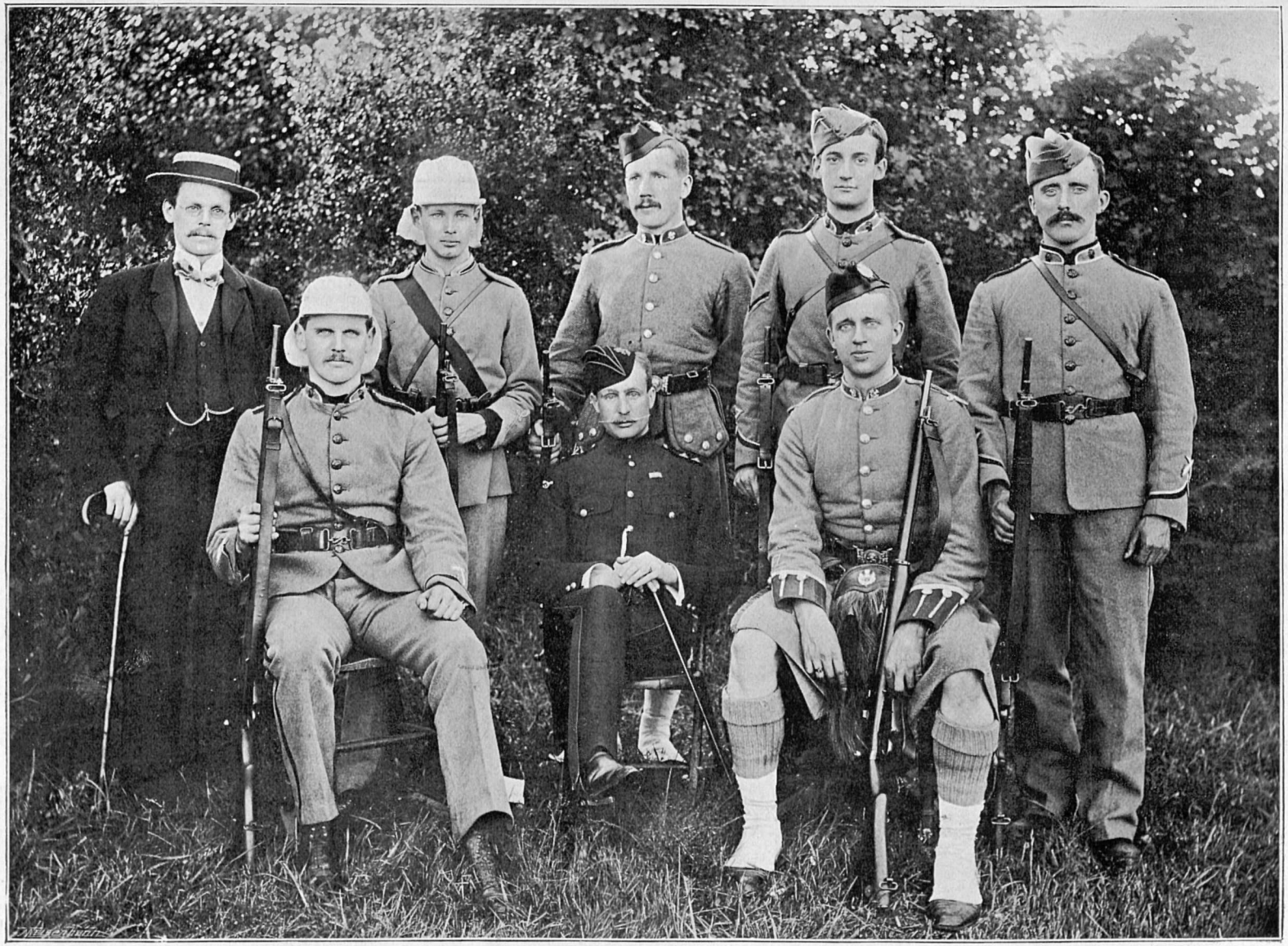
S. H. MASON (Coach).

Pte. O. B. TRAVERS (14th Middx.)

Pte. J. A. GLOVER (London Scottish.)

Lce.-Cpl. HODGSON (Artists' R.V.)

Pte. B. W. MOSS (Artists' R.V.)



Pte. A. PEARSON (Artists' R.V.) (Captain.)

Capt. G. T. RAWNSLEY (Royal Army Medical Corps).

Pte. H. STANLEY TURNER (London Scottish) (Hon. Sec. and Tres.)

GUY'S HOSPITAL RIFLE TEAM.—Winners of the Inter-Hospital Challenge Cup, Bisley, 1898.

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Passim.

Once again, as every year, it is our pleasant duty to give all those who enter Guy's a most hearty welcome. And it is the more so because on our side we know what good fellows always do come to Guy's, and for their part we feel that we can honestly tell them what a fine place it is on which they have set their choice.

The virtues of the Hospital will not be apparent to them all at once, but will slowly make themselves felt with advancing years, for, good as the work in the dissecting room is, it has been rightly said that a man does not really join Guy's till he gets into the wards. There he first begins to appreciate the wider and more human interest of working to relieve the sufferings of living people, and has his first foretaste of the fascination of the noblest profession that there is.

And it is in the wards that the student will first meet and to get to know the men whose names till then had been but names to him, the Members of the Staff, and he will find in them some of the best friends that a man can have, keen to know him as a man as well as a student, always ready to back him up under difficulties, or ready with advice when asked for it, and we fancy very few men leave Guy's without a deep debt of gratitude to one or more of their old teachers.

To repeat a very old piece of advice, work as hard as you can and play as hard as you can, but don't devote yourself too much to either to the exclusion of the other. Work, as we all know, we have plenty of, and the examiners see that we do not suffer from lack of scope or variety; and there is the same variety about the games that a man can play here, from football to squash rackets, and their only drawback is that they are slightly more attractive than work at times. But each man will soon find his own particular pursuit without any unnecessary talking from us.

The Football season commences directly the Session begins, and it is absolutely essential that every man who is to play football should attend one or all of the trial games at Honor Oak Park, for however good a man may be, or whatever reputation he may come up with, the representatives of the two teams must see him play before they can properly place him. The Rugby trial game is on Saturday, October 1st, and the Association games on October 1st, 5th, and 8th.

And let us again call every man's attention to the fact that if they want to know anything, ask about it from one of the Secretaries, either at the Hospital or the Ground, who will be delighted to give them any help in their power.

Mr. R. C. Mullins has our heartiest congratulations on being elected Captain of the Surrey Football Team. Everybody who has seen him play, and has noticed his unostentatious steady work, will agree that he has only got an honour which he entirely deserves.

There is room for any amount of keenness in the football teams of both kinds, as on the Rugby men devolves the task of keeping the Cup they won from St. Thomas's, after ten years, in such a splendid fashion this year, and the Association team have to win back the Cup they lost last season, after holding it the year before. The only thing to be done is to practice hard at the ground and keep fit, and learn to play the game together as a team, and not as individual players.

We have great pleasure in announcing that Sir Samuel Wilks, Bart., F.R.S., and H. Cosmo O. Bonsor, Esq., will both be present at the House Dinner on October 3rd, and that Sir Samuel Wilks will take the chair at the Physical Society's meeting afterwards.

The illustrations that we give our readers today speak for themselves, for the first is the Rugby team of last year, of which we have spoken above; and luckily with the exception of F. C. Wetherell, last year's captain, the team will be the same this year as last, and ought to have as good a chance of distinguishing itself; and the second photograph is that of the shooting team, who also distinguished themselves by winning back the Inter-Hospital Shooting Cup after a number of years.

The following letter, brought up to Dr. Perry at Skins the other day by a small boy with scabies, is not without humour:—"Doctor—Sir, Kindly let me know if the Rash on R—— M—— is from the bite of a Dog that he had a few weeks ago, and please is it infectious. Do you

think the dog ought to be distroyed and oblige—Yours respectfully, etc."

DR. TAYLOR will this year commence the lectures in Medicine, and Dr. Pye-Smith will be in Clinical at the beginning of the Session.

WE would call the attention of all Guy's men to the fact that Netley House, Henrietta Street, Cavendish Square, already well-known as a nursing home, has been taken over by four Sisters who have recently left Guy's; Miss Dupuis (Sister Cornelius), Miss Irwin (Sister Stephen), Miss Hobhouse (Sister Lydia), and Miss Pye (Sister Surgery). The undertaking is a bold one, and the management of such an establishment is no sinecure, but we wish them every success: certainly if success comes to those who merit it they will have their full share. Miss Dupuis and Miss Irwin are to be Sisters in charge, and Miss Hobhouse and Miss Pye Nursing Sisters.

WE regret to announce the departure of the Rev. C. H. Bowden, who has been Chaplain here for many years, and has given some of his best work to the hospital. His new church is that of St. Paul's, Bermondsey, close to the back of the hospital, in a district which will need all his care. We wish him success in his new district.

IT has been urged in our contemporaries, the *Lancet* and *British Medical Journal* that the schools should institute lectures in Tropical Medicine. This has already been done in more than one school, and we should venture to direct the attention of the authorities at our own to take this matter into their serious consideration. We know, to our cost, how many lectures have already to be attended, and the institution of another series would appear not altogether an unmixed blessing. It has always seemed to us that where one has the opportunity of seeing certain diseases in the concrete form, lectures—except in the form of Clinical lectures—are almost superfluous. Except for an occasional case of malaria, one rarely sees a tropical disease in London, and one has to be content with reading second-hand summaries.

WITH a certain amount of pride we would say that if instruction in the subject is given at any hospital, that hospital should be Guy's. We venture to say—as we have said before—that Guy's men are ubiquitous, and had we such a course at Guy's, the men who go out would know more of the diseases they meet in the tropics for the first time. But, what is more important, they would be more likely to know what to take out with them in order that they might, in their leisure moments, undertake research and clear up many, even simple, points which are as yet obscure. We should be glad to hear the opinions of some of those who have been out in the tropics on this point.

IN speaking of Captain Beyts' appointment as surgeon on the Personal Staff of the Commander-in-Chief in India, the *British Medical Journal* remarks:—"Captain G. W. Beyts' gallant conduct during the operations of the Kurrum Valley, under General Yeatman Biggs, was alluded to in the *British Medical Journal* of December 18th, 1897. Captain G. W. Beyts was mentioned in despatches, and our contemporary, the *Army and Navy Gazette*, expressed a hope that a V.C. would be conferred on him. This reward, however, has not yet come to him."

Guild of St. Barnabas for Medical Students.

Chaplain: Canon Newbolt. Hon. Sec.: B. E. G. Bailey, 14, Woburn Square, W.C.

MONTHLY GUILD-SERVICES, in N.W. Chapel, St. Paul's Cathedral (entrance by W. door), at 6.15 p.m., on Wednesday, October 5th; Wednesday, November 2nd, and Wednesday, December 7th. Tea in Chapter House at 5.45.

SESSIONAL CORPORATE COMMUNION, in the Jesus Chapel, St. Paul's Cathedral (entrance by small S.E. door) at 7.30 a.m., on Thursday, October 6th.

The objects of the Guild are the encouragement of a high ideal of faith and practice amongst students of medicine, who are members of the Church of England. The Guild services are open to all medical students. Further information will be given by the Hon. Secretary, or by Mr. Fremantle, Guy's Hospital, on application.

NOTICE TO CORRESPONDENTS.

The Editor wishes it to be understood that no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Guy's Hospital Clubs' Union.

THE FORMATION OF THE CLUBS' UNION, by the amalgamation of the various constituent institutions, took place in the summer of 1891. The objects of the amalgamation are to further the interests of the clubs and societies existing at the Hospital by their mutual support, and to simplify the collection of subscriptions. By the payment of an annual subscription, or of a composition fee (see Clubs' Union Blue Book, page 14), to the Clubs' Union, any student of the Hospital can obtain the privilege of membership of the constituent institutions.

THE GROUND OF THE CLUBS' UNION, which is under the control of the council, is situated close to Honor Oak Park station, on the London, Brighton and South Coast Railway, and to the Crofton Park station on the London, Chatham and Dover Railway. It is nine acres in extent, and is the headquarters of the Guy's Football, Cricket, Athletic and Lawn Tennis Clubs. Under such restrictions as are found necessary by the committees of the several clubs, and are approved by the council of the Clubs' Unoin, every member of the Union has opportunities of practising and taking part in matches, and in the various sports and games. There is a large pavilion upon the ground, with dressing and lavatory accommodation. Refreshments can be obtained by members of the Union according to the tariff of the Students' Club.

The ground-man, who is a professional cricketer, has quarters in the pavilion. His duties are to keep the ground in order, to prepare the wickets and lawn tennis courts, and to bowl to such members of the Union as shall be selected by the committee of the Cricket Club. Lockers may be rented on application to the ground-man, at a charge of 5s. for the summer or winter season, 2s. 6d. deposit is also required on the key.

Cheap railway tickets between London Bridge and Honor Oak Park stations are issued to members of the Union upon conditions which will be found enumerated in the Clubs' Union Blue Book.

THE HOSPITAL "BLUE."—The "Blues" Committee, consisting of two representatives from each associated club, award "Blues" and "Half-Blues" to members of the following teams:—Rugby Football, Association Football, Cricket, Athletic, Lawn Tennis, Water Polo and Bicycle, after considering the list of men suggested by the various Clubs' Committees through their delegates. Blues are awarded half-yearly, at the end of each session, so that the Rubgy Football team be represented by fifteen Blues, the Association Football by eleven Blues, Cricket by eleven Blues. The Athletic by "Blues" and "Half-Blues," dependent on the recommendation of the Athletic Committee, according to the performances at the Inter-Hospital sports. The Lawn Tennis by three Blues and three Half-Blues, the Water Polo by seven Half-Blues, and the Bicycles by six Half-Blues.

CONSTITUENT INSTITUTIONS.

THE FOOTBALL CLUBS.—President, J. N. C. Davies-Colley, M.A., M.C., F.R.C.S. Rugby—Captain, R. C. Mullins; Hon. Sec., T. P. Thomas; Captain Second XV., G. Evans; Captain Third XV., M. A. Collins; and a committee of five, one representing each year. Association—Captain, R. W. B. Hall; Hon. Sec., A. R. Thomas; Captain Second XI., D. G. Greenfield; and a committee of five, one representing each year.

The Rugby Football Club has now been in existence for over fifty years, the season of 1898-9 being the fifty-fifth. Very little is known about its early history; it is, however, recorded that when the Rugby Union was formed in 1871, the G. H. F. C. was one of the original pioneers, and the only hospital club in the movement; it then had a reputation second to none. The club's position in the football world was acknowledged by the Union electing J. H. Ewart to serve on its first committee, which included such historic names as A. Rutter (president), E. H. Ash (hon. secretary), F. J. Currey, F. Stokes, and A. G. Guillemard. Amongst the many brilliant players who at one time or another have appeared for Guy's may be mentioned the following International footballers:—A. W. Pearson, W. W. Pinching, A. H. Jackson, L. Stokes (captain 1877-8), A. S. Taylor, W. G. Mitchell, H. W. Dudgeon, A. Allport (England); H. M. Jordan (Wales); R. Evans (Scotland); and F. O. Stoker (Ireland).

In 1874 the Inter-Hospital Challenge Cup was instituted, which Guy's were fortunate enough to secure for the first time. Since its institution, St Thomas's have held the Cup ten times; Guy's five times; St. George's three times; London and St. Bartholomew's twice each; and Middlesex once.

In 1891, Guy's, Middlesex, and St. Thomas's were left in, the ties not being played out.

Of last year's team we lose F. C. Wetherell at half, who will be very much missed. With this exception we shall have all last year's team, and we have already heard of a few men who have come up with good reputations.

We hope that backs, as well as forwards, will make the best use of the very excellent opportunities there are at Honor Oak Park, and in the gymnasium of getting, and keeping fit.

A trial game will be held on October 1st, further notice of which will be posted on the notice-boards.

All freshmen wishing to take part in hospital football are particularly requested to try and make a point of playing in this game. The first match will be on October 8th with Kensington.

A ball for practice can always be obtained at the ground at Honor Oak Park.

The officers of the club will always be very glad to give any information required.

The following matches have been arranged for this season:—

FIRST FIFTEEN.

Oct. 1	Trial game...	Home.
8	Kensington	Home.
15	Lennox	Away.
22	Old Leysians	Away.
29	*Cardiff	Away.
31	*Penarth	Away.
Nov. 2	Cambridge...	Away.
5	Rosslyn Park	Home.
12	Croydon	Away.
16	East Sheen	Away.
19	Bedford	Away.
26	Old Merchant Taylors	Home.
30	Royal Engineers	Away.
Dec. 3	*Blackheath	Away.
10	Catford Bridge	Away.
17	London Scottish	Away.
1899.		
Jan. 7	Old Leysians	Home.
14	Croydon	Home.
18	East Sheen	Home.
21	Rosslyn Park	Away.
28	Marlborough Nomads	Away.
Feb. 4	Catford Bridge	Home.
11	Kensington	Away.
18	Lennox	Home.
25	R.I.E.C.	Away.
Mar. 4	Richmond	Away.
11	Old Merchant Taylors	Away.

*Combined with St. Thomas's Hospital.

SECOND FIFTEEN.

Oct. 1	Trial game	Home.
8	Kensington	Away.
15	Lennox	Home.
22	Marlborough Nomads	Home.
29	Old Merchant Taylors	Away.
Nov. 5	Rosslyn Park	Away.
12	Croydon	Home.
19	Beckenham	Away.
26	St. Bartholomew's Hospital	Away.
Dec. 3	Beckenham	Home.
10	L. & W. Bank	Away.
17	... ...	Home.
1899.		
Jan. 7	Marlborough Nomads	Away.
14	Croydon	Away.
21	Rosslyn Park	Home.
28	Redhill	Away.
Feb. 4	... ...	
11	Kensington	Home.
18	Lennox	Away.
22	Merchant Taylors School	Home.
25	St. Bart.'s Hospital	Home.
Mar. 4	... ...	Away.
11	St. Thomas's Hospital	Away.

The Association Club has now been in existence for fifteen years, having been instituted in 1882. Since that time it has, for the most part, been in a flourishing condition.

For the first four years after the institution of the Inter-Hospital Challenge Cup (1886-89), Guy's obtained that trophy, and in two of those years, 1887 and 1889, won the Surrey County Cup as well. In 1894 the Inter-Hospital Cup was again won, and last year it was once more brought back to this hospital. Guy's have now held the cup more times than any other hospital, having won it six times out of a possible twelve.

Among the prominent players who have represented Guy's in Association football may be mentioned H. J. Holman, H. B. Bolus, E. T. Mitchell, H. Hickman, N. C. Cooper, Norman Lavers, A. M. Daniel, A. B. Carter, R. T. Fitz-Hugh, and H. M. Barker.

Among this year's fixtures will be noticed some new clubs, the list including Hastings, St. Leonards, Ipswich, and Crouch End Vampires.

We are unfortunate in losing last year's captain, L. Humphry, and two other men are also out of their year, E. A. Longhurst and A. R. Thomas. Freshmen should remember that these three vacancies will most probably have to be filled from their ranks.

There are to be three trial games this season, October 1st, 5th, and 8th, so we hope that there will be no excuse for men not being able to get away. All freshmen anxious to play should put their names down, with the position they play in, on the lists which will be posted in the colonnade and smoking-room.

We should like to urge on members of the team, who are unable to play in any match, the necessity of scratching their names off as soon as the list is put up, instead of waiting till the last moment, as it is very difficult to find anyone to fill the place. On the whole, we think the season should be fairly successful. The following matches have been arranged for this season:—

FIRST ELEVEN.

Oct. 1	Trial game...	Home.
5	Trial game...	Home.
8	Trial game...	Home.
15	Old Harrovians	Home.
19	Hastings	Away.
22		...
29	1st round Surrey Cup	
Nov. 5	St. Leonards	Away.
12	Weybridge...	Away.
19	Idlers	Home.
26	Old Foresters	Away.
Dec. 3	Crouch End Vampires	Home.
7	Emeriti	Home.
10	Reigate Priory	Away.
17		...
1899		
Jan. 7	Croydon Park	Home.
14	Weybridge...	Away.
18	Emeriti	Home.
21	Reigate Priory	Away.
28	Ipswich	Away.

Feb. 4	Ewell	Home.
8	R. M. A.	Away.
11		...
15	Royal Veterinary College	Home.
18	Old Cranleighans	Home.
25		...
Mar. 1	Eastbourne	Away.
4	Felstead School	Away.
11	Crouch End Vampires	Away.
18		...

SECOND ELEVEN.

Oct. 1	Trial game...	Home.
5	Trial game...	Home.
8	Trial game...	Home.
15	1st round Surrey Junior Cup	
22	Christ College	Away.
26	R. M. A.	Away.
29		...
Nov. 2	City of London School	Home.
5		...
9	St. George's Hospital	Home.
12	Eversleigh	Home.
19	Crystal Palace, E.S.	Away.
26	Old Foresters	Home.
Dec. 3	Kenley	Away.
10	Old Cranleighans	Home.
17		...
1899		
Jan. 7	Croydon Park	Away.
14	L. C. C.	Home.
21	Carshalton Park	Home.
28	Eversleigh	Away.
4	Ewell	Away.
11		...
18	Old Cranleighans	Away.
22	St. George's Hospital	Home.
25		...
Mar. 4		...
11	Old Foresters	Away.
18	City of London School	Away.

THE CRICKET CLUB.—President, W. A. Brailey, Esq., M.D.; Captain, K. B. Alexander; Vice-Captain, A. E. Clarke; Secretary, H. Durbridge; Captain second XI, T. Morgan; and a committee of four.

Guy's have always done well at Cricket, and since the institution of the United Hospitals' Challenge Cup, in 1882, have held the coveted trophy for no fewer than eleven years, from 1884–88 inclusive—the Cup which is now the absolute property of the hospital, and used to decorate our smoking-room—from 1890–94, and in 1897.

In the first two years of the competition King's were successful, then for the following eleven years Guy's held the Cup with the exception of 1889, when St. Thomas's took it from us. Since 1894 our efforts have not been crowned with such remarkable success, but in 1897 the Cup again returned to Guy's after a most exciting match with University College, when we won by the small margin of two wickets. As may be imagined, with such success, we have by far the best results of any hospital. From 1886–98 we scored in Cup-ties alone 7663 runs to 5155 of our opponents. The highest individual scorer was J. C. Shenton with 172, and an average of 91 for cup-ties. Three-figure innings have also been secured by W. J. Scott, F. Colclough, J. H. Joyce, W. I. Hancock and C. E. Francis. In bowling every year there have been excellent performances. Among the most notable were those of C. H. Rygate and J. D. Cruickshank, who bowled all the King's wickets down in 1886 for the cost of *three* runs; of J. H. Bettington who took seven wickets for twenty-one against Bart's., in 1890, as did W. G. Mitchell against St. Mary's in 1887; of J. H. Joyce in 1893, who captured twelve of the King's wickets for 36, and eight of Westminster's for 19 runs; of F. C. Wetherell in 1897, who took five University wickets for 15, and of A. E. Clarke in 1896, when v. Bickley Park he took nine for 43, and v. Brentwood eight for 16 runs. There are many names of note in connection with cricket at Guy's, to mention all of which would crowd out other matter. However, in addition to those mentioned are A. F. Clarke of Mitcham, E. J. D. Mitchell, S. Wacher, Edgar Reid, and the late J. B. Bettington.

THE ATHLETIC CLUB.—President: R. Clement Lucas, Esq., B.S., F.R.C.S. Hon. Secretaries and Treasurers, W. L. Baker, F. W. Sime; and a committee of ten.

The annual meeting of the Athletic Club is held in June at the Clubs' Union Ground, Honor Oak Park. From amongst the successful competitors, the team to do battle for Guy's at the United Hospitals meeting is selected. Since the institution in 1867 of the Athletic Championship of the United Hospitals—the first inter-hospital competition of any kind—Guy's, who were the first to secure the shield, have won it on eight occasions, St. Bartholomew's nine times, St. Thomas's five times. King's, St. George's and St. Mary's thrice each, and London once. Amongst the prominent athletes who have performed for Guy's are, W. Maltby, who appeared for North v. South in the two miles during 1873; A. W. Pearson, J. Reader, J. G. Gravely (1877), hurdles, in which his record, 16¾ seconds, remained unbroken until the present year; L. Stokes, A. S. Taylor, W. G. Mitchell, H. A. Munro, who for five years (1891-95) won the mile and three miles, in each of which he holds hospital record, and in 1895 he won the amateur championship for four miles; H. T. S. Bell, who has three times (1892-94) won the 100 yards, twice (1892-93) each the 220 yards and high jump, in both of which he holds record, and long jump (1893-94); in his last year he also tied for first place in the "high"; P. R. Lowe, hurdles (1892-93); F. S. Batchelor, 440 yards (1893); and E. N. Scott, throwing the hammer (1893-94-95).

It is to be hoped that the Cross Country Club will find some fresh talent among the men now entering, as it would be a great pity to lose the Cup which we have now held for so long. The headquarters are at the Royal Forest Hotel, Chingford, on the borders of Epping Forest, from which some most delightful tracts of country are

easily accessible. Short runs also take place during the week from our ground at Honor Oak Park. Guy's have now held the Inter-Hospital Cross Country Challenge Cup for seven years running. The opening run will be either the second or third Saturday in October. Slow and fast tracks will be started and only a moderate run attempted. Matches have been arranged against various other clubs. Fixture cards will be out in October. All information can be obtained from W. L. Baker or S. J. Ormond.

THE LAWN TENNIS CLUB.—President: W. Arbuthnot Lane, M.S., F.R.C.S. Vice-President: J. W. Washbourn, M.D. Captain: P. S. Mandy. Hon. Secretary and Treasurer: H. K. Lacey; and a committee of eight. The club has been in existence some eight years. There are twelve very good grass courts at Honor Oak, which are open for play from the end of April to the end of September. The club holds, at the beginning of the season, several trial games, which serve to bring before the notice of the committee all promising new players, while one or two matches are played weekly against various London clubs. The Inter-Hospital Challenge Cup was instituted in Jubilee year; it was held by St. George's until 1890; Guy's held it 1891–1892; St. Thomas's, 1893–1896; St. Bartholomew's, 1897, and this year it was won by London.

THE RIFLE ASSOCIATION.—President, L. A. Dunn, Esq., M.S., F.R.C.S. Captain, A. Pearson (20th Middlesex Artists R.V.). Hon. Secretary and Treasurer, H. Stanley Turner (7th Middlesex London Scottish R.V.) and a committee of five. There has been a steady improvement in the Guy's Rifle Team for the last five years, and so marked was this in the season just closed, that our representative succeeded in doing that which they have been unable to accomplish for the last fourteen years, viz., to win the United Hospitals' Challenge Cup, with a score of only 4 points below the record established by St. Thomas's last year. The challenge cup presented by Dr. G. Newton Pitt (President of United Hospital R.A.) is shot for at the Annual Prize Meeting. Probably a considerable number of new men have already served in cadet corps, and have therefore had practice. It is to these men we must look to help to retain the Cup in the forthcoming season. They are advised to join a volunteer corp (full information can be obtained from notice boards in the Colonnade), as only volunteers are eligible to represent the Hospital at Bisley. Shooting men are requested to communicate with the Hon. Secretary *at once*, by letter, and he will give full information.

THE BICYCLE CLUB.—President: C. H. Golding-Bird, F.R.C.S. Captain: J. E. L. Bates. Hon. Secretary and Treasurer: W. P. Ker; and a committee of six.

The Club meets for runs every Saturday, and has four race meetings in the year (in addition to the Inter-Hospital contests).

A general meeting for the election of officers, etc., will take place in November, and all students who are cyclists are requested to communicate with the Hon. Secretary, or any member of the committee, as soon as possible, so as to join in the final club runs of the season.

The object of the club is to promote social runs among the members. As several valuable prizes have been promised it is hoped some speed men will also come forward for the coming season.

The Hospital has been represented in the United Hospital and Cambridge, Oxford, the London B.C., and Sheen House matches, and also won the shield for the fourth time in succession.

GUY'S HOSPITAL SWIMMING CLUB.—WATER POLO.—President: A. D. Fripp, M.S. Vice-Presidents: L. A. Dunn, M.S., J. Fawcett, M.D. Captains: J. L. Payne (1st team), D. G. Greenfield (2nd team). Committee: J. H. Wilkes, J. R. S. Ash, G. Evans, E. J. F. Hardenberg, G. Marshall. Hon. Secretary and Treasurer: C. B. Sells.

The past season has not been so great a success as the last, which is to be accounted for by the fact that of last year's team only three members remain, viz., Payne, Ash, and Grose, the rest of the team being made up entirely of men who before this season had never handled a polo ball before. In the friendly games the percentage of wins was low; this undoubtedly was due to our taking on clubs who were too strong for us. In the cup ties we defeated St. Mary's by 6 goals to 2, but in the final round had to haul down our colours to St. Bartholomew's, who just scraped home by two goals to one, after a most exciting and evenly contested game, in which we had very hard lines. That we have the foundation of a good team is not to be doubted, and the way in which some of our men came on towards the end of the season was very good. To turn to the second team, there are a number of men who will, with constant practice, make good players. It is to be hoped that the second team will serve the purpose for which it was formed, namely, a nursery for new players. Of the present year's team we are losing one man, Payne, whose loss will be felt keenly, as a more energetic and capable captain it would be hard to find. Grose has played a useful and consistent game throughout the season. Ash has played well all the season, but still retains his old fault of not picking up the ball soon enough. Edwards has plenty of speed, and with careful practice will make a very good forward. Carlow has the making of a good player. Greenfield has improved a lot, and is a safe back. Wilkes has exhibited very good form in goal, is very cool in a tight corner. It is to be hoped that next year we may win back the cup, but this object will not be realised unless men will turn up and practice, picking up the ball and throwing quickly, which is more than half the battle in a polo match. The time of practice is 3.45 p.m. on Thursdays at St. Saviour's Baths during the summer session. The club is indebted to Mr. Baker, the Superintendent of the baths, for his kindness and courtesy to all members. A

great improvement has been effected at the baths by the addition of a "water-chute" and springboard, and can hold its own against most of the public baths in London for cleanliness.

THE PUPILS' PHYSICAL SOCIETY.—Hon. President: Sir Samuel Wilks, Bart., M.D., LL.D., F.R.S. Hon. Secretaries: J. H. Targett, M.S., and G. Bellingham Smith, B.S.

This flourishing Society was founded in 1830, on the plan of the old Physical Society, which existed during the latter part of the eighteenth century at Guy's Hospital. From a copy of the old laws of the Physical Society, dated 1800, we learn that the Society met every Saturday night, from seven to ten, during the month of October, and each month until the following May. Business at these meetings was divided into private, including "matters in which the Society may be concerned," and public, consisting "in the communication of cases and opinions." A fine of sixpence was exacted from a member absent at the "Roll Calls," also from a member refusing "to hold up his hand on one side or the other," to decide any question. Members were divided into honorary, ordinary and corresponding. So much for the old Physical Society, of which an account is given in the *Biographical History of Guy's Hospital*, by Bettany and Wilks, a work which every Guy's man should possess. It may be obtained from the librarian, who has still some copies of the first edition, price 10s. 6d.

At the Pupils' Physical Society, which meets fortnightly on Saturday evenings, a paper on some subject, not necessarily of medical interest, may be read by any member, to be followed by a discussion.

"Clinical and Pathological Evenings" are devoted to the exhibition and discussion of interesting cases or specimens which may be shown by any member. The following is the programme of the meetings of the Society during the ensuing session:

1898.

Oct. 3. General meeting after the House-Dinner. A paper will be read by W. H. Crosse, Esq., F.R.G.S., "On Nigeria," illustrated with lantern slides.
„ 15. Clinical Meeting.
„ 29. A paper on "Plague-work," by H. W. Bruce.
Nov. 12. Pathological Meeting. A series of lantern slides will be shown by Dr. H. W. Pigeon, of Hull.
„ 26. A paper by W. T. Milton.
Dec. 10. Clinical Meeting.

1899.

Jan. 7. A paper on "The Function and Pathology of the Pituitary Body,', by G. N. Meachen.
„ 21. "Burns and Scalds." By F. E. Walker.
Feb. 4. Pathological Meeting.
„ 18. "The Treatment of Fractures." By C. T. Hilton.
Mar. 4. "Parasiticism." By A. H. Davies.
„ 18. Last meeting. The Treasurer's Prize Essay on "The Pathology of Jaundice" will be read.

Members are reminded that in connection with the Society the following prizes are offered for competition:—The Treasurer's Prize of £5 is given annually, and the subject of the Essay for the ensuing session is "The Pathology of Jaundice." The Society offers a prize of £10 for the best paper read during the session; a prize of £5 to the member who distinguishes himself most in the discussions; and a prize of £5 to the member who exhibits the best specimens of scientific interest during the session (see Clubs' Union Blue Book, page 51).

THE DENTAL SOCIETY.—President: M. F. Hopson, L.D.S. Vice-Presidents: J. B. Parfitt, L.R.C.P., M.R.C.S., L.D.S.; W. R. Wood, L.R.C.P., M.R.C.S., L.D.S.; J. W. Pare, M.D., C.M., L.D.S. Treasurer: J. L. Payne, L.D.S. Hon. Secretary: P. H. Hayes Palmer. Committee: E. B. Dowsett, L.D.S., P. S. Campkin, F. Warlow, J. H. Wilkes, C. R. Shattock.

The Society was founded in the early part of 1894. Its fourth session commenced in October last, and was eminently successful in every way; good papers were read and much interest was taken in the meetings by the members.

Meetings are held every month during the winter session. They are held in the Dental Lecture-room, on the second Tuesday in each month, at 4.30 p.m. Papers on subjects of dental interest are read, after which a discussion takes place; clinical cases are also shown at each meeting; and one evening during the session is specially set apart as a clinical evening. This year a prize of £5 will be given for the best paper read before the society. The first meeting will take place on October 11th, at 4.30 p.m.

THE GUY'S HOSPITAL BRANCH OF THE MEDICAL PRAYER UNION (Hon. Secretaries: K. Anderson, W. B. Hope, and A. B. Passmore) has for its object the furtherance of the Christian life at Guy's Hospital. It is the perpetuation of the meetings instituted here by Drs. Habershon and Golding-Bird over forty years ago. On Thursdays, at 4.30 p.m., addresses are given by visitors invited for the occasion. These meetings are held in the board-room by the kind permission of the Treasurer. A room (No. 43) in the College is rented by the members for committee meetings, prayer meetings (daily at 12.45 p.m.) study and social intercourse. The Missionary Society, which is strictly undenominational, is doing good and useful work. The attempt thus made to unite the interest of the students in the work which is being carried on in foreign lands by medical missionaries, and to increase the knowledge of missionary work, has proved to many a source of helpfulness.

The opening meeting of the Union will be held at 4.30 p.m. on Thursday, October 6th; in the board-room, when Dr. Pye-Smith is expected to preside and give an address. On October 20th the Annual Sermon will be

preached in the chapel of the hospital at 4.30 p.m. On each preceding occasion there has been a large attendance, and it is hoped this year will see a large congregation.

The list of meetings for the ensuing quarter will be published shortly. Copies may then be obtained in room No. 43 in the college.

THE DEBATING SOCIETY—President: F. W. Pavy, M.D., LL.D., F.R.S. Vice-Presidents: L. A. Dunn, M.S., F. G. Hopkins, M.B., B.Sc., and J. Fawcett, M.D. Secretaries and Treasurers: F. Shufflebotham, S. J. Ormond, and a committee of six students.

The Debating Society is entering on its seventh year of existence, and its fourth as a constituent of the Clubs' Union. Meetings are held once a month on Saturday night in the Club smoking-room, when debates take place on some subject of political, scientific, literary, or of general interest. The discussion of theological questions is prohibited.

At the end of the session there is a "Ladies' Night," which is largely patronized by the Staff and their families, the Sisters and the Students of the London School of Medicine for Women. During the summer season there are no ordinary meetings, but there is an annual dinner, which is followed by an impromptu debate. The first meeting will probably take place on October 22nd.

All members of the Clubs' Union are requested to support the Society by attending the meetings, and if possible to take part in the debates, though no one will be called upon to speak against his wish.

Members who are willing to bring forward subjects for debate are requested to communicate with one of the secretaries.

THE GUY'S HOSPITAL GAZETTE is the journal of the Pupil's Physical Society, and is conducted by a committee of publication under the chairmanship of J. H. Targett, M.S. A student member of the committee is elected by them to act as sole and responsible editor during such time as the committee may please. The publication takes place fortnightly on Saturdays, from the library of the hospital, where copies may be obtained by all members of the Clubs' Union and by immediate subscribers to the GAZETTE, and this issue only is specially enlarged to 60 pages. The first number was "launched" on October 1st, 1872, and the GAZETTE is thus entering on its twenty-sixth year of existence. It was the first medical students' journal ever published in this country. It ran an uninterrupted course until 1879—the last number appearing in November of that year—or, for that matter, in any other, so far as can be ascertained, and was then suppressed, rather from excess of zeal than from lack of material. The present "new series" was inaugurated in 1887, and since that time it has continued to flourish without a break. The original GAZETTE was a two-leaf publication and only had a small circulation in the hospital itself. It has attained to the proportion of 32 pages and has a circulation of over 1,500, the greater part, of course, amongst old Guy's men and nurses. This prosperity, as few men realise, depends largely upon the sound financial footing on which it is placed, and upon the business-like arrangements for its publication which are mainly due to the business staff of the hospital and medical school. It is for this reason that we publish advertisements, although studiously excluding them from the letterpress and so from the bound volumes; and it is partly for the same reason that we occasionally publish critiques of the chief matters advertised. As a result, other hospitals have envied our success and have endeavoured with the assistance of our business staff to follow our example.

The columns of the GAZETTE are open to any reasonable correspondence concerning grievances, improvements, or facts of interest, the writer's name being requisite as a guarantee of good faith, if not for publication. All contributions must be deposited in the editor's box in the colonnade, or addressed to the editor by post by Wednesday at latest in each week of issue.

THE REPORTS.—Edited by W. H. A. Jacobson, M.A., M.Ch., and E. C. Perry, M.A., M.D.

The first volume of the Guy's Hospital Reports appeared in 1836. The Reports are now published annually, and contain contributions upon professional and scientific subjects from the staff of the Hospital and Medical School. The volume of the present year is the 53rd.

THE STUDENTS' CLUB.—Committee till 1899 (March). President: P. H. Pye Smith, M.D., F.R.S. Treasurer: C. J. Symonds, M.S. Hon. Secretary: J. Fawcett, M.D. Hon. Assistant Secretary: R. T. FitzHugh. Committee: A. D. Fripp, M.S., G. B. Smith, B.S., F. J. Steward, M.S., F. G. Cross, R. C. Mullins, F. G. Gibson, H. A. Higgins, and the President of the Residents.

The above-named manage the affairs of the Club, a full account of which will be found in the Club's Union Blue Book, p. 61.

GYMNASIUM.

The Pavy Gymnasium, which was built and furnished by the liberality of Dr. Pavy, is open daily for practice, and during the winter session a boxing instructor attends on each Thursday afternoon, and a gymnastic and fencing instructor on each Tuesday afternoon. At the end of the session a competition for prizes is held, and a display of gymnastics and boxing and fencing is given on the "Ladies' Night."

The course of boxing for the season 1898-99 will start with a lesson on Thursday, October 6th, while the first class in fencing and gymnastics will meet on the following Tuesday. Staff-Sergeant Young, who has for many years given entire satisfaction for his civility and efficiency as instructor in gymnastics and fencing, will this season teach the art of boxing as well, so that it is hoped by the committee that Guy's men, more especially new men, who have an all-too-short five years before them, will do their best to again bring Guy's to the front

as champion hospital in the boxing competitions; and the committee also hope that sufficient new blood will be introduced this October to keep up the high standard of the annual assault-at-arms.

The Bubonic Plague.

ABSTRACTED FROM THE GOVERNMENT REPORT.

(Concluded.)

II.—Report by SURGEON-CAPTAIN CHILDE, I.M.S., Member of the Plague Research Committee.

ABSTRACT.

A.—ON THE POST-MORTEM APPEARANCES OF PLAGUE.

The bodies examined were, for the most part, those of well-nourished adults of the servant and labouring classes. Usually the skin was found intact, except that there were cracks and abrasions about the hands and feet, resulting from occupation, and also in many cases marks of the common parasitic skin diseases, especially ringworm and itch.

The following varieties of plague were met with:—

The Bubonic Form.

The Septicæmic Form or Plague-Septicæmia.

The Pneumonic Form or Plague-Pneumonia.

A.—THE BUBONIC FORM.

The bubo was usually situated in the groin of either side, less commonly in the axilla, rarely in the neck, and most rarely in the supra-trochlear or popliteal region; the limb corresponding to the bubo was swollen and œdematous, and petechiæ were usually seen upon it, but they were always in greatest number over the site of the bubo itself; and occasionally there might be a few over the body generally. In the case of an axillary bubo the whole axilla looked full and smooth, and the swelling extended down the side nearly to the margin of the ribs, down the inner part of the arm to the elbow, and over the anterior and posterior axillary folds. On dissection there was an enormous mass of dark coagulated blood and serum which occupied the whole axilla and included the glands, so that the whole mass had to be removed together; and on incision this was found to consist of the connective tissue of the part gorged with blood, and of coagula due to hæmorrhages, whilst within were seen the glands. (In recent cases, of four or five days' duration, there were some glands of a deep red and some of a lighter red colour, but all intensely engorged and solid, not breaking down, but a little soft from the amount of blood in them; whilst in older cases, of seven or eight days, the glands were softer, more pink in colour and almost diffluent, suggesting in fact the appearance of a rather soft spleen.) The glands were rounded or oval in shape, and varied in size from a walnut to a pea. The smallest glands were the deepest in colour and most solid, whilst the largest were of a lighter red colour and softer consistence. The axillary vessels were pressed upon and surrounded by the enlarged glands and extravasated blood, so that in fact they became incorporated in the bubo, and it was mainly by this pressure on the axillary vein that the œdematous condition of the arm, as referred to above, was produced. The hæmorrhage and coagula extended beyond the axilla and were found in the areolar tissue, as well as amongst the muscles; this condition also extended down the arm and could be seen in the areolar tissue as far as the elbow. There was also much clear œdema fluid which assisted in forming the swelling found in the axilla as well as beyond its borders. The bubo thus was found to consist, not of a single enlarged gland, but of a chain of glands of various sizes, surrounded by a mass of engorged areolar tissue, coagulated blood and œdema fluid.

With regard to the remaining lymphatic glands of the body. — The left supra-trochlear gland was intensely engorged and the size of a large bean, rather firm and full of dark blood; the right supra-trochlear, right axillary, cervical of both sides and bronchial looked normal or just *slightly* engorged. The mesenteric, iliac, lumbar and popliteal were in the same condition; whilst the inguinal were some as large as beans, pinkish and slightly engorged, others of about the normal size and appearance. It may be mentioned here that the lymphatic vessels presented no abnormality as a rule, except that in some cases those near the bubo seemed to be slightly swollen; the thoracic duct too was either normal or possibly slightly swollen.

In the case of a bubo in the groin there was a similar diffuse swelling in Scarpa's Triangle extending to the neighbouring parts: whilst when the bubo was in the cervical region this swelling was enormous, and pressed upon and embarrassed the larynx and trachea.

Condition of the other organs.—Hæmorrhages were frequently found beneath the conjunctivæ, in the connective tissue under the scalp, and under the periosteum on the surface of the cranial bones, also extravasations sometimes of large size amongst the muscles, especially in those of the abdominal wall.

Nervous system.—The dura mater and pia mater were much engorged, and the appearance of lymph was seen along the course of the larger vessels in the latter membrane; the puncta cruenta in the brain were well marked, but the brain substance itself looked normal, as did the fluid in the ventricles. The spinal cord presented a similar engorged appearance, but showed no other abnormality, and the nerve-trunks appeared to be normal.

Alimentary system.—The tonsils were either normal or enlarged to the size of almonds, of a dusky purple colour, soft and engorged; pharyngeal tonsils, the parotid, and sub-maxillary salivary glands presented similar appearances. The mucous membrane of the pharynx and œsophagus was usually dusky from engorgement. The stomach showed constantly a distinctly engorged appearance with hæmorrhages into the mucous membrane which were usually petechial but sometimes of a larger size. Similar engorgement and petechiæ

were frequent in the large intestine and rectum, but were less generally found in the small intestine. (This applies especially to petechiæ.) In some cases Peyer's patches and the solitary follicles looked distinct, prominent and slightly swollen; but usually they were somewhat distinct or of the normal appearance.

The *Liver* was always distinctly enlarged and full of blood, but the substance itself was usually pale and soft from parenchymatous degeneration, there was bile in the gall bladder either of the usual appearance or thin and watery. Hæmorrhages into the mucous membrane of the gall bladder were rarely seen. In one instance small necrotic patches were scattered through the liver.

The *Pancreas* was either normal or engorged.

The *Spleen* was always enlarged, sometimes to two or three times the ordinary size, the capsule normal, the spleen-pulp of a brick-red or purple colour and markedly engorged. It was either fairly firm or rather soft and the Malpighian bodies plainly seen as if each were engorged, giving the section a granular appearance.

Urinary system.—The kidneys were always enlarged and much engorged, the capsule stripped easily and petechial hæmorrhages were constantly found beneath it; the kidney substance itself was pale and soft from parenchymatous degeneration. There was distinct engorgement of the pelvis of the kidney with petechial hæmorrhages and sometimes a large clot distending the pelvis and calices. The whole ureter was frequently engorged, and distinct hæmorrhages could be seen under its inner coat. The bladder was usually distended with urine, which was either of the normal or a slightly blood-stained colour; small hæmorrhages were frequently seen in the mucous membrane of the bladder.

The genital system showed nothing abnormal beyond some engorgement. The supra-renal capsule and thyroid body were engorged, but otherwise normal.

The peritoneum showed considerable engorgement, and hæmorrhages into the retro-peritoneal tissue were frequently found.

Circulatory system.— The pericardial cavity usually contained a few ounces of blood-stained or clear fluid, and petechial hæmorrhages were constantly seen beneath the visceral and parietal pericardium. The heart-muscle was either normal or in some cases soft and friable; dilatation of the right side, with *post-mortem* clots in the cavities, was often present. There was not much engorgement of the walls of arteries, but the vena cava and other large veins showed this condition very markedly. On opening the veins distinct petechial and larger hæmorrhages were seen under the inner coat, giving it a mottled appearance. Where a large vein, *e.g.* axillary or femoral, was included in the bubo, this hæmorrhage into its walls was constantly seen so that the extravasated blood in the gland itself, in the areolar tissue outside it and in the walls of the vein, was all directly continuous. I think that the blood itself was more fluid and showed less tendency to clot than is usually seen after death.

The Respiratory system.—There was some engorgement of the larynx and trachea, and the mucous membrane of the bronchial tubes was usually swollen and engorged. There was much general engorgement of the lungs with œdema, and small hæmorrhages into the lung tissue were frequently seen. Frothy sero-mucous fluid, which was sometimes blood-tinged, was found in the bronchi. The pleura showed marked engorgement, and its cavity often contained some blood-stained or clear fluid; sub-pleural hæmorhages, sometimes of large extent, were commonly found on the upper surface of the diaphragm, on the chest-wall and on the surface of the lungs, especially between the lobes. In cases of cervical bubo the engorgement and œdema extended to the larynx, and œdema of the glottis was present.

Note.—A variety of the bubonic form of plague must be mentioned here. Instead of finding one large bubo, the chain of enlarged glands was found in the inguinal region, and it extended into the pelvis right along the iliac artery as far as the lumbar glands. These glands were dark-red, soft and friable and intensely engorged and looked like soft spleen tissue; there was great engorgement, extravasation and œdema around them, and they surrounded the iliac artery and vein, so that in dissecting out the gland mass these vessels came away enclosed in it. The glands were as large as almonds, and were so incorporated in the coagulated blood that it was scarcely possible to dissect them out. The remaining glands and other organs in the body were in the condition described above.

B.— THE SEPTICÆMIC FORM OR PLAGUE-SEPTICÆMIA.

In the Septicæmic form there is no bubo, but there is a general involvement of nearly all the lymphatic glands, one gland, or several glands of one set, showing characteristic changes pathognomonic of this type of plague. These appearances are :—The gland is enlarged to the size of an almond or less, is rounded, firm and pink in colour; on section it shows some engorgement and œdema, its substance is rather soft and can be easily scraped off with a knife, and sometimes small softening areas were present. There was no hæmorrhage in the areolar tissue around this gland and at most only a little œdema and trifling engorgement of the vessels. Commonly there were one or several such glands in one inguinal region, and usually the lowest gland of the chain was most markedly affected; whilst those higher up varied in size from a bean to an almond, and had the same firm pink appearance, though there were at times some which looked nearly normal in size and shape. The iliac glands of the same side were similarly affected. The inguinal glands of the opposite side showed similar changes, and the iliac showed slighter changes or looked normal. The lumbar usually showed a slight enlargement and were either pale and soft or somewhat pink and firm. The cervical and axillary varied in size from hazel nuts to peas and usually showed merely engorgement, being full of dark blood; but sometimes some of them showed the pink, firm appearance described above. The mesenteric were enlarged to the

size of peas and beans and were engorged. The supra-trochlear and popliteal were normal or engorged. The condition of the remaining organs was such as has been already described under the bubonic form.

The difference between the bubonic and the Septicæmic form of plague appears to be this;—In the bubonic form the plague bacillus after entering the body is arrested at the nearest group of glands, grows here vigorously, and as a result of its growth the bubo is formed. Here the bacillus forms the toxins which are discharged into the system and cause the symptoms of plague, but the glands of the bubo form a barrier which prevents the bacilli from passing on and growing generally throughout the body; and it is only shortly before death, in fatal cases, that this resistance is overcome and the bacilli are able to pass on into the system generally. But in the septicæmic form the bacillus, after entering the body meets with feeble resistance at the nearest glands; it speedily overcomes all opposition and passes on to infect other glands and organs where it grows abundantly.

It may be mentioned here that no bubo of the mesenteric glands was ever found; there was no evidence to show that the plague bacillus had reached the stomach or intestines, *e.g.*, in food, and thence infected the mesenteric glands.

C.—The Pneumonic Form, or Plague-Pneumonia.

In this form of plague the only marked evidences of disease are found in the lungs, the lymphatic glands and other organs are scarcely affected. The lungs were in the following condition:—There was general engorgement with considerable œdema, a reddened condition of the mucous membrane of the bronchi, but no marked evidences of bronchitis, and frothy watery fluid, sometimes blood-stained, could be squeezed from the bronchi. (Pus in the bronchial tubes was only found on one occasion.) A number of Pneumonic patches were found scattered through the lungs, varying in size from a pea to an egg. They were light pink or red grey in colour, solid, airless, and sank in water; they were rounded in shape and usually separated by a distinct ring of engorgement from the crepitant lung around. Some, instead of being pink, were of a deep blood colour throughout and less solid, and some of these had a small greyish more solid centre. Patches situated on the surface of the of the lung were prominent and projected distinctly from the surface; whilst the pleura over them was roughened and showed signs of early inflammation. These patches had in fact the appearance of the first and second stages of lobular pneumonia, but no patches were found which had passed on to the third stage of softening and breaking down. In a few cases larger masses of pneumonic lung than these were found. Petechial hæmorrhages were usually found on the surface of the lung; the bronchial glands were either enlarged, swollen, œdematous, soft and distinctly engorged, or else they were small and of the usual appearance. The remaining lymphatic glands throughout the body looked normal, and the only noticeable change was that the axillary, and sometimes the cervical chains were a little engorged.

The description of the remaining internal organs already given applies equally to this form of plague, except that the large hæmorrhages were absent, but petechiæ on the surface of the heart, in the pelvis of the kidney, bladder, stomach and intestines were commonly present. Petechiæ in the skin were not observed in this form of plague.

B.—Microscopic Pathology of Plague.

The Bubonic Form.

Bubo.—The areolar tissue around the glands of the bubo is engorged, free hæmorrhage is seen in the areolar tissue and fat, and all the vessels visible are full of blood. The glands are uniformly full of extravasated blood, with more intense hæmorrhages here and there, and the gland tissue is so overlaid with blood as to be scarcely visible; in some, probably earlier, glands the blood-cells are distinct; in others, probably older, they are not so distinct, and the gland is stained with blood-colouring matter, softer, showing granular debris, and beginning to break down in parts. Still there is no distinct appearance of pus, and it seems to be a necrotic softening. In some of the smaller glands the typical early appearance is seen; the whole gland is infiltrated with blood, the blood corpuscles being distinct, and at some part there is a large hæmorrhage occupying half or more of the gland. So intense is the hæmorrhage that there is no distinction between cortex and medulla, nor can the gland tissue or blood and lymph-vessels be easily made out, but the walls of such vessels as are seen are deeply engorged both in the gland as well as at the hilus. Such lymph-vessels, as can be seen particularly at the hilus, are full of lymph corpuscles, and there is some engorgement of their walls, and sections of the lymph-vessels, seen outside the gland, show the same appearance. Specimens were cut to show the glands of the bubo lying against and around the axillary artery and vein; here there is intense engorgement of the walls of these vessels with hæmorrhage into them, but much more of the vein than of the artery; in the vein the extravasated blood comes right through its walls into the inner coat and as far as the lumen; and thus there is a direct path for the passage of the plague bacillus from the gland to the lumen of the vein, and so into the general circulation.

Lung.—A section of the lung shows blood-cells in all the vessels as well as in the alveolar capillaries; the vessels under the pleura contain blood, and large hæmorrhages are sometimes present here; areas are also seen where blood-cells are present in the alveoli themselves, and blood-cells may be seen in the smaller bronchial tubes. The vessels of the walls of the bronchi are distended with blood; the bronchial mucous membrane shows no special change. Specimens of lung stain well.

Liver.—All vessels are engorged and the specimen has the appearance of early nutmeg disease. The central veins are wide, as are the capillaries round them, and the portal veins are also distended with blood-cells;

around the distended central and portal veins there is fine granular pigmentation of the liver cells. Engorged vessels are seen just beneath the capsule of the liver, and there may be hæmorrhages here. The nuclei of the liver-cells stain badly and the cells have a cloudy indistinct appearance as of parenchymatous degeneration.

Spleen.—The vessels, both large and capillary, are distended with blood-cells; here and there is a dilated vessel full of blood and round it an area of engorged capillaries, with hæmorrhage into the spleen tissue. Engorged vessels are also seen in some glomeruli, and vessels distended with blood leading to the glomeruli; distended vessels with hæmorrhages around them are well marked under the capsule. Section of spleen stain well and the cells are distinct.

Kidney.—The vessels, both large and capillary, are distended with blood-cells at places, and hæmorrhage is seen into the kidney substance. This condition is marked immediately beneath the capsule. Blood-cells are seen in many of the tubules, more so in the straight than in the convuluted, and some of the glomeruli are engorged. The epithelium of the tubules is swollen and in a condition of parenchymatous degeneration and the nuclei of the cells stain badly: this condition is more plainly seen in the convuluted than in the straight tubes. Some specimens show hæmorrhage at the pelvis of the kidney.

Ureter.—The vessels of the walls of the ureter are distended with blood, and hæmorrhage has occurred into the walls, blood-cells being seen in the mucous membrane even as far as the lumen; the condition is similar to that found in the walls of veins.

Stomach and intestines.—The vessels are distended with blood, best seen in the sub-mucosa; at places small hæmorrhages have occurred. The epithelium does not stain well. Peyer's patches normal.

Brain and spinal cord.—The large vessels and capillaries of the pia mater are distended with blood, but no special changes have been seen in the substance of the brain or spinal cord.

Muscle.—In specimens of voluntary muscle some fibres are well stained and distinctly striated, but mixed with them are others badly stained, with striation faint or absent; muscle substance swollen, broken up into irregular lumps, and of a shiny homogeneous appearance. *Heart-muscle* showed this condition also. (This degeneration of heart-muscle is associated with the dilatation of the heart and nutmeg condition of the liver found *post-mortem;* and also with the fact that plague-patients are liable to die suddenly of heart failure.)

Blood-vessels.—In the outer coat of large arteries the blood-vessels are found full of blood, and the capillaries of the middle coat may also be distended; but the inner coat is distinct and intact, and its elastic tissue plainly visible. The walls of large veins show more engorgement, and large collections of blood may be seen immediately beneath the inner coat, extending as far as the lumen; the inner coat is either extremely thin or cannot be traced over the hæmorrhage. This condition is best seen in vessels incorporated in a bubo.

The following organs were also examined, but nothing was observed under the microscope except some engorgement. The tonsils, salivary glands, thyroid body, breast, male and female generative organs, cartilage, nerve, and thoracic duct. Sections of the skin were also made and showed engorged capillaries with small hæmorrhages where petechiæ were visible on the surface.

THE SEPTICÆMIC FORM.

Lymphatic glands.—The areolar tissue around the plague glands shows none of the intense engorgement seen in the bubonic form. The plague-glands themselves are well stained and their anatomical features are distinct. The blood-vessels are distended with blood corpuscles, and at parts hæmorrhage has occurred into the gland-substance, most frequently beneath the capsule. The lymphatic vessels in the gland are wide and distended with lymph-corpuscles. The distension of the blood and lymph vessels is most marked at the hilus, and there may be hæmorrhages into the areolar tissue here. Some small areas may be seen where softening and breaking down is taking place, granular debris and broken-down cells being present. The glands show these changes in varying degrees. The glands, which have not the characteristic plague appearance, show under the microscope either slight engorgement or normal features.

With regard to the remaining organs, the appearances described under the bubonic form apply also to the septicæmic form of plague.

THE PNEUMONIC FORM.

A section of lung-tissue, apart from a pneumonic area, shows engorgement of large blood-vessels, and of alveolar capillaries: patches of hæmorrhage into the alveoli around these engorged vessels are scattered about. In a pneumonic area three zones can be made out. At the circumference there is intense engorgement of all vessels, the alveoli are full of blood, and many of the alveolar septa are broken down, entirely absent, or represented by mere shreds. Within the circumference is a zone in which the alveoli are intact and are completely filled with well-stained cells, and at the centre is one universal mass of similar cells, and the cellular infiltration is so extreme that the walls of the alveoli are scarcely visible.

Under a higher power the alveoli of the circumference are seen to be completely filled with blood corpuscles, and there is scarcely any appearance of fibrin; in the middle zone the alveolar contents consist of catarrhal epithelium with some white and a few red blood-corpuscles, and a little fibrin, whilst the central mass of cells consist of catarrhal epithelium and leucocytes with some granular debris. Thus the pneumonic area has the appearance of extreme lobular or catarrhal pneumonia.

The walls of the bronchi and of the large veins show great engorgement with hæmorrhages into the vein-walls. Blood and catarrhal cells may be seen in the finer bronchi, but the mucous membrane is unaltered or at most shows a little cellular proliferation. There are the appearances of acute pleurisy over those pneumonic areas which project upon the surface of the lung, with hæmorrhages beneath the pleura.

The bronchial glands show engorgement of blood-vessels, some hæmorrhage into the gland tissue and distended lymphatic vessels; in some cases the glands looked normal. The remaining lymphatic glands in the body looked either normal or presented the characters described above to a slight extent.

With regard to the other organs, the description given under the bubonic form of plague applies here also, except that generally engorgement and hæmorrhage are less marked.

THE PLAGUE BACILLUS IN SITU.

Sections of the various organs and lymphatic glands were prepared to show the plague bacillus *in situ*; they showed best when stained with Löffler's methylene blue or carbol-fuchsin, but they could not be demonstrated with Gram's method.

In the glands of the bubo the bacilli could be seen in enormous numbers, both amongst the cells of the gland-tissue and also in the lymphatic vessels; they were also seen amongst the blood-corpuscles extravasated into the gland, as well as in the hæmorrhage outside the gland. In cases of plague septicæmia they were present in the enlarged characteristic glands. In the kidney the bacilli could be seen among the blood-cells of the tubules into which hæmorrhage had occurred; in the spleen they were present, sometimes in large numbers amongst the cells of the spleen-tissue and in the hæmorrhagic areas; similarly they were found in the liver, especially where engorgement and extravasation were marked.

In cases of plague-pneumonia, the bacilli were seen in abundance in the pneumonic areas; they could be found amongst the catarrhal epithelial cells and leucocytes which filled the alveoli, as well as among the blood-corpuscles of the alveoli into which hæmorrhage had occurred. In the lungs of non-pneumonic cases they could be seen, in less numbers, and mostly where hæmorrhages had occurred into the alveoli.

Note.—These specimens were prepared immediately after death, and from cases where the presence of the plague-bacillus had been proved by the method of cultures.

MODE OF ENTRANCE OF THE PLAGUE-BACILLUS INTO THE BODY.

Having regard to the fact that the initial bubo in plague is usually situated in the glands of the extremities, especially the inguinal and axillary chains, it appears probable that the bacillus may enter the body through a lesion of the skin—preferably of the extremities—and thence travel upwards to the nearest group of lymphatic glands and thus form the bubo. In order to test this theory a large number of plague cases were examined to see if any primary lesion in the skin could be discovered through which the bacillus had entered; and as the patients mostly belonged to the lower classes, who commonly go bare-footed and bare-legged, it was usual to find cracks and abrasions about the feet, and also about the hands, the latter resulting from occupation. Further, as various parasitic skin diseases, such as ringworm and itch, are very common among these people, it will be seen that there are many opportunities for the bacillus to enter the body through the skin.

Bearing in mind the analogy of anthrax and syphilis, the skin was examined to see if any characteristic lesion was similarly present in plague. No such definite lesion was found, but in certain cases the bacillus was proved to be present in a particular lesion on the skin, and as in each instance the bubo was situated in the glands corresponding to the lesion, this place was believed to be the point of entrance of the bacillus. There was nothing characteristic about the lesion. It was usually a small ordinary-looking papule on a slightly inflamed base, with a little serum at its apex and partly covered by a scab. In some cases a hair was found growing through its centre, and it seemed to be merely an inflamed hair-follicle which had been scratched.

MODE OF EXIT OF THE PLAGUE-BACILLUS FROM THE BODY.

From the *post-mortem* appearances it is seen that engorgement and hæmorrhage are marked features of plague, and that hæmorrhage is constantly found on the surface of mucous membranes; consequently, as soon as the bacillus has entered the blood of the general circulation, it is possible for it to escape from the body in the hæmorrhages on mucous surfaces. In the *urinary system* blood may be found in the urine during life, and there may be extravasations on the surface of the ureter and bladder; hence by the urine there is a direct route for the bacillus to leave the body.

Again in the *alimentary system*, petechiæ are nearly always present in the stomach, and as vomiting is a very constant symptom of plague, the bacillus may escape in the vomit; similarly petechiæ are generally found in the colon and rectum, and hence the bacillus may escape in the fæces. As for the *respiratory system*, blood may be found in the alveoli of the lungs in ordinary cases of plague, whilst in cases of the pneumonic type it is invariably present; in these latter cases the bacillus is present in enormous numbers in the pneumonic patches and in the sputum, and it is extremely probable that plague-pneumonia for this reason plays an important part in spreading the disease. (In the preceding section the secretions have been named from which the plague-bacillus was isolated by the method of cultures.) The bubo itself, in certain cases suppurates, and it would seem possible for the bacillus to escape in the pus; but in several instances where cultures were made from the pus, no growth of the plague-bacillus was obtained. It remains to make a remark about the presence of the bacillus in the *blood*. In a number of *early* plague cases, cultures were made from the finger-blood, but the bacillus could not be isolated from them, but in fatal cases the bacillus could always be grown from the blood immediately after death, and in one instance it was grown from the finger-blood twenty-four hours before death. Hence one may say that at least in fatal cases, the bacillus is present in the blood for a certain time before death, and is able to leave the body in the various secretions which contain blood.

[The foregoing Abstract of the Report of the Plague Research Committee hardly appears complete without a short account of the morphology and biology of the specific organism of bubonic plague, and we have therefore obtained the following description of the organism from the Bacteriological Department.—ED.]

The *Bacillus pestis*, or plague bacillus, was independently and almost simultaneously isolated by two observers, Kitasato and Yersin, during the epidemic of bubonic plague that occurred at Hong Kong towards the end of 1894.

In addition to being found in the characteristic lesions of the disease as it occurs in the human subject, the Bacillus pestis has been isolated from the lymphatic glands of rats and mice dying in infected districts; from the alimentary canal of flies and bugs; from the earth and cow-dung forming the floors of infected houses; and in at least one instance from water. As a result of some experiments carried out by Mr. Hankin, it appears that the organism when planted into sterilised water dies out within three days. In grain experimentally infected, but otherwise sound, the plague bacillus dies within from four to six days; if, however, the grain is rotten, it acquires an acid reaction, due to the presence of fatty acids resulting from the decompostion of the carbo-hydrates, and under these conditions the bacillus dies in from two to twenty-four hours.

Opportunities for isolating the plague bacillus are fortunately almost unknown in this country. One case, which we believe to be unique, occurred in the Seamen's Hospital at Greenwich in 1896, and was investigated by Dr. Hewlett, of the British Institute of Preventive Medicine. It follows, therefore, that most of the observations upon this organism in England have been made with subcultures from imported specimens.

The Bacillus pestis, as found in the bubo and characteristic glands, is a non-motile short ovoid rod, with rounded ends, measuring 2·5μ by 1·5μ, scattered about among blood cells and leucocytes, generally singly, but sometimes arranged in pairs. In stained cover-slip preparations the extremities of the rods show a marked preference for the dye, the central portion being clear and unstained, or taking the dye but faintly, giving rise to the appearance known as "polar" staining. Any of the basic anilin dyes may be used to stain the bacillus, but it is decolorised when treated by Gram's method. When present in living tissue the Bacillus pestis has been said to possess a capsule, but this point lacks confirmation. Spore formation has never been observed. The bacillus is a facultative anaerobe, does not liquefy gelatine, forms indol during the course of its growth and produces an acid reaction. It is rapidly killed by heat, either dry or moist, an exposure for a few minutes to a temperature of 100° C. being sufficient to destroy it. Exposure to direct sunlight is fatal to the organism in about four hours; it resists drying (at the room temperature) for as long as thirty days, but if the drying operations are conducted at a temperature of about 30° C., and over a vessel of sulphuric acid, the bacillus rapidly dies. It also resists the action of weak alkalies and carbolic acid, but appears extremely sensitive to weak acids, either organic or inorganic, a 1 in 1429 solution of H_2SO_4 destroying the bacillus within five minutes.

Cultivations.—The bacillus pestis may be cultivated upon all the ordinary laboratory media. It grows best when incubated at a temperature of 37° C., but will also grow at the room temperature (20° C.) When cultivated *in vitro* the bacillus rapidly loses it virulence.

The characteristics of the growth upon the various nutrient media may be epitomised as follows:—

Broth.—The growth in this medium resembles that of the streptococcus, and consists of a flocculent or slightly granular deposit on the sides or bottom of the tube, whilst the broth itself remains clear.

Agar plate cultures.—Individual colonies appear as small raised circular translucent discs, with a smooth shining surface and slightly wavy edges.

Agar streak culture shows a continuous line of moist whitish filmy growth with crenated margins.

Blood serum (inspissated).—Growth similar to that upon agar. The medium is not liquefied.

Gelatin streak culture shows as a thin whitish semi-transparent continuous line, which rapidly spreads over the surface of the medium to the sides of the tube. The medium is not liquefied.

Gelatin stab culture.—Growth occurs as a white line of small spherical colonies along the line of puncture.

The microscopical appearances of the bacillus pestis, derived from early cultivations upon artificial media, closely resembles those presented by the organism when present in living tissue, with perhaps the exception that in the latter situation it exhibits a marked tendency to grow out into chains of bacilli or "strepto-bacilli"; in fact, the long sharply-curved chains of short oval bacilli occurring in broth cultivations are characteristic of the plague bacillus. In old cultivations involution forms are extremely common, and consist, for the most part, of large spherical and swollen irregular masses, together with numerous spindle-shaped bodies. These involution forms appear with great rapidity when the organism is cultivated upon nutrient agar, to which 4 per cent. NaCl has been added; and this feature has been taken advantage of as a means of diagnosis.

Pathogenesis.—The Bacillus pestis is pathogenic to rats, mice, guinea-pigs, and rabbits. Rats and mice, when fed upon material infected with the plague bacillus usually die within three or four days. When inoculated subcutaneously the immediate result is a marked local reaction of an inflammatory character. This is shortly followed by enlargement of the nearest lymphatic glands, and finally a general infection resulting in death in from one to five days.

Post-mortem.—The most marked features are general glandular enlargement, with engorgement of all the internal organs and local hæmorrhages of various sizes. The spleen is enlarged, dark, and hard, and frequently studded with yellowish points not unlike miliary tubercles. The bacillus pestis is present in large numbers in

the glands and spleen; it is present also, although in smaller numbers, in the blood of the general circulation. J. E.

30th August, 1898.

Pandemic Diphtheria.

Epidemic Diphtheria: A Research on the Origin and Spread of the Disease, from an International Standpoint. By Arthur Newsholme, M.D. Lond., M.R.C.P. (Swan Sonnenschein, 1898, pp. 196. 7s. 6d. nett.)

The opening words of Dr. Newsholme's Introduction suggest in a mild way the amount of time and labour he has spent in collecting the material for his work. The first hundred pages contain the statistics of diphtheria from every available country, and from almost every great town. Instead of giving page after page of figures, however, the percentage mortality for each place and year have been calculated and represented by columns. The author is very careful to point out that the mortality figures might not represent the real case figures, but as it is well-nigh impossible to obtain universal case figures the former have been used. Allowing for a slight error which this fact causes in the height of the columns, the general curves will be practically unaffected, and it is upon the position of the crest rather than upon the height that his theory rests.

One depressing fact is brought out by the statistics, and that is that Scandinavia has had a national system of notification of sickness for years, whereas we —well, we have not, nor seem likely to have.

Diphtheria is not a modern disease, for it was probably the disease spoken of by Macrobius in 380 A.D. It was not until 1826, however, that the term *diphthérite* was used by Bretonneau, and it was only in 1883 and 1884 that Klebs and Löeffler described the *causa causans*.

In all towns with records Diphtheria is endemic, but there are what Dr. Newsholme calls "Favourite endemic foci." These places, *e.g.*, New York, Paris and Berlin, always have a large amount of diphtheria.

Although one still hears it said that diphtheria is a rural disease, this is completely disproved by the statistics. "Thus the whole of Michigan, which has a large proportion of rural population, has much less diphtheria than the neighbouring city of Chicago; the whole of Massachusetts has less diphtheria than Boston or New York; the whole of England less than London."

Certain towns show much more endemic diphtheria than others. "In a given country the amount of diphtheria is greatest in the parts having the smallest rainfall. Speaking generally, in this country towns on the west coast have much less diphtheria than those inland, or to the east of the ranges of hills which determine the rainfall in inland towns. The small amount of diphtheria in rainy Ireland confirms the same result."

The incidence of the disease is greatest on those under ten years of age.

Since diphtheria is endemic in our great towns, why should they be liable to epidemics and pandemics? The factors requisite to produce diphtheria in an individual are the virulence of the bacillus and the susceptibility of that individual. These factors are controlled by various circumstances, some of which appear important, others unimportant. It is only by knowing the whole circumstances that we shall be able to say what are the causes of the epidemics.

Dr. Newsholme quotes Mr. Justice Fry upon the subject of major and minor causes, but we think that an epigram of Professor Clifford Allbutt will appeal more forcibly to the medical mind: "No one would venture to say that a father was the cause of his son."

In order to find the causes of the epidemics Dr. Newsholme has laid before us the conditions which have accompanied the epidemics of the past, and has arrived at certain conclusions which will be hard to disprove.

The first factor is undoubtedly personal infection, which, as he says, is the chief one by which diphtheria is spread. But allowing this, "Personal infection does not explain why, in some years, diphtheria, although present in a district in an endemic form, does not spread, while in another year, in which only the same opportunities of personal infection occur, it becomes extensively epidemic. Still less does it explain the occurrence of widely scattered epidemics, and even pandemics, in certain years."

The compulsory attendance of children at school is a factor in the spread of diphtheria, and largely, no doubt, in keeping the disease endemic. But that this will not by itself account for more than small local epidemics is evidenced by the fact that at Copenhagen, Christiania, Stockholm, Berlin and Hamburg, compulsory school attendance has been in force for the last fifty years, whereas during the past eighteen years there have been in all these cities large epidemics without any alteration in the enforcement of school attendance.

There does not seem to have been an increase in diphtheria in London since the enforcement of compulsory school attendance in 1871. But this attendance would not account for the fact that from 1871 to 1881 the diphtheria was less than during the preceding decade, nor, alone, for the epidemic of 1892, '3 and '4. It is further to be noted that the amount of diphtheria at the height of the epidemic was no more than is endemic in New York, Chicago, Berlin and Paris.

A reason which Dr. Newsholme suggests for the start of an epidemic (even in a district where diphtheria is already endemic) is the increase in the virulence of the "saprophytic" bacillus diphtheriæ. He thinks that "the bacillus under certain conditions becomes more actively virulent and infective—more remote from its saprophytic phase of life, and that, thus, persons who can resist the ingress of the feebler, fall victims to the more powerful micro-organism. The latter is probably the correct hypothesis, and the evidence already given clearly points to the conclusion that of the external cultural conditions leading

to increased virulence of the diphtheria-bacillus and greater readiness for assuming a parasitic life, exceptional deficiency of rainfall, and consequent exceptional deficiency of moisture in and exceptional warmth of the subsoil form an essential part." For this latter hypothesis we fail entirely to see what evidence he has given. In another part of the book he admits that there is an increase in virulence with the increase in quantity up to a certain point. This fact is more clearly seen in the early periods of small epidemics. It has often been noted that the first cases of an epidemic are generally mild, and the virulence increases as the epidemic progresses. The evidence of this increasing virulence is almost entirely swamped when whole year statistics are taken for large areas. It comes into strongest relief when small districts are considered at small intervals of time.

Suppose that the virulence of the bacillus in its saprophytic condition is below that necessary to infect the most susceptible, and that under favourable conditions (a dry warm soil) it rises to the point necessary to infect, it must be supposed that the bacilli responsible for the endemic disease are much more virulent. So the epidemic is started by bacilli less virulent than that which is causing the endemic manifestation. Which we think is absurd.

The great point of the book is that, contrary to the usually accepted idea, epidemics and much more pandemics only begin in years in which the rainfall is deficient, and that the epidemics are on the largest scale when three or more years of deficient rainfall immediately follow each other. To prove this he has a large array of figures, and he has displayed them in such a manner that he who runs may read.

That there are exceptions to this law he himself shews, and further suggests that eventually perhaps it will be shewn that the condition of the subsoil and ground water determines the epidemic. That is, that under certain conditions of subsoil and ground water, epidemics may (not *will*) occur, whereas under certain other conditions *no* epidemics *will* occur. The subsoil and ground water are affected by the rainfall, but there are not sufficient statistics available to shew the precise amount and form of the influence and until these can be obtained, no advance in this direction can be made.

The book is of such value to the epidemiologist and is the outcome of so much thought and labour that it seems captious to criticise it in detail. Two points, however, we would suggest. The book could be made easier for the student to read by slight re-arrangement. For instance, we think that chapters xi., xii. and xiv., should be placed earlier, and there is a tendency to make the chapters overlap to such an extent that it is sometimes difficult, without an index, to refer to particular subjects. We think also that the diagrams on pp. 27, 57 and 59 would be better if they had a zero, and if they were printed on the right hand side of the page, and the names on the left.

The Dressers' Rooms.

LIST OF SUBSCRIPTIONS.

The following subscriptions have been received for the renovation of the photographs in the dressers' rooms.

	£	s.	d
C. Spurrell	0	2	6
R. P. Rowlands	0	2	6
H. L. Eason	0	5	0
A. E. Porter	0	2	6
C. P. Weekes	0	2	6
P. Turner	0	2	6
F. A. Godson	0	2	6
R. W. Mayston	0	2	6
A. J. Cleveland	0	2	6
F. G. Batchelor	0	5	0
J. V. Salvage	0	2	6
L. H. McGavin	0	2	6
F. G. Cross	0	2	6
C. H. Fagge	0	2	6
W. H. Goosely	0	2	6
C. R. Hodson	0	2	6
M. H. Way	0	2	6
W. R. Cazenove	0	2	6
H. Carden	0	2	6
R. T. Fitz-Hugh	0	2	6
A. C. Osburn	0	2	6
H. Leader	0	2	6
R. Howard	0	2	6
E. C. Adeney	0	5	0
C. Edwards	0	2	6
C. W. Booker	0	2	6
W. G. Stewart	0	2	6
C. Hardenburg	0	2	6
H. P. W. Barron	0	2	6
P. N. Vellacott	0	2	6
L. Wilkin	0	2	6
E. W. Goble	0	2	6
R. W. B. Hall	0	2	6
W. B. Secretan	0	2	6
M. H. Thorneley	0	2	6
F. J. Steward	0	2	6
A. H. Tubby	0	2	6
H. J. Starling	0	2	6
E. R. Row	0	2	6

This makes a total of £5 10s. which is sufficient for doing all that is needed. The work is now in hand. It is proposed that, in future, the House-Surgeon for the week be responsible for the repair of any damage done to the photographs. By this means it is hoped to keep the pictures in good order.

F. S. BATCHELOR.

Concerning Humour.

An article with a purpose.

"One word is too often profaned for me to profane it," hence this article makes no profession to intrinsic humour; it is merely a calm, philosophic review, well intentioned, if inadequate, of a vast subject, the importance of which in this world, if not in the next, can scarcely be exaggerated, even by its most thick-skinned exponents. Humour may be figuratively described (I will not commit myself to a definition) as a vast expanse of territory, in which the traveller may observe every variety of natural scenery—from the rugged ranges of primitive granite, the border shires of the grotesque, to the lowlands, where on the surface of many sparkling rivulets the sun and shadows fall lightly in an ever dance, and through a thousand quivering leaves the wind rustles innumerable fantasies—the highly cultivated Province of Wit.

To leave this somewhat extensive simile, humour may be said to consist in a due sense of proportion, with a corresponding appreciation of the intensest absurdity of disproportions in their various kinds—whether great disproportions—which means low comedy, buffoonery, and generally the grotesque, or fine disproportions in the nice juxtapositions of which the subtle spirit of wit most especially delights. The impossible and the unexpected to the man who hath not humour in his soul are only a source of annoyance; he wonders, not without disdain, at the charm which others find in the delicate incongruities invariably perceptible in ordinary affairs to those who have eyes to see; everything to him is positive and literal, and though he may recognise differences, it is not as differences but merely as natural consequences of dissimilar facts; his mind, in truth, being so taken up with the facts themselves that he can give no attention to the distinction between them considered purely as a thing in itself.

The obvious disadvantage of this is that all facts come to appear serious and important—inasmuch as they *are* facts; such a man takes even himself seriously, and cannot regard his own thoughts as unimportant, or his own actions as futile. If any of my readers will consider for a moment the opinions and deeds of any one of his friends, he will at once see into what a parlous state a man has fallen, when, for want of a sense of humour, he has habituated himself to such a condition of mind.

Many things are, indeed, forgiven in great men, and the absence of a sense of humour has occasionally been one of them; still if there is one thing concerning which the lives of greatmen (I am obliged to print it thus, *metri gratia*) should all remind us, it is that by imitating them closely we can make our lives pre-eminently ridiculous; and, moreover, in this connection it may be pointed out to the aspiring many that in a few cases at least some amount of failure in the attainment of greatness is bound to take place. Hence eschewing humour on the chance of becoming great involves a certain risk over and above the fact that no great man has ever been accounted less so for the possession of it.

Of course catholicity of humour cannot be the lot of all, and the exponents of rival types should not be too hard in their judgment on each other, or too hasty to outlaw from the domain of their common master those whose particular cult does not happen to coincide with their own. Doubtless it is difficult for a polished and classic wit to appreciate the humour which finds its outward expression in the bisection and subsequent resuturing of a policeman in a pantomine. But even the Scotch are stated to be unable to understand some forms of humour. Let not then the young student of the humorous despair; I have sometimes, "in my silly south British way," imagined a college of humour in which pupils should be graduated through buffoonery, burlesque, the comedy of manners, and the *double entendre* up to the refinements of the retort courteous and the whimsical witticisms of the fantastic school.

As nothing now-a-days can be accomplished (much less dreamed of) without a system of examinations and degrees, these in my scheme would be provided, and the Doctorate of Humour would, I flatter myself, be a degree much prized among civilized communities. Accessory details have not as yet been more than sketched out. Candidates might offer as additional subjects in the Humour School "Technical Humour," "The Humours of the Street," "Topographical, or Regional Humour," and so on. But this is but a dream, and in these days when even a few votes are precious, I doubt if any government would risk offending the small humourless minority either in the House or the country, by introducing a Bill to endow such an institution out of public money.

Failing the fulfilment of this scheme, individuals may yet do something for the advancement of humour. Here, at Guy's, it may be mentioned for the special benefit of those who as new arrivals in our midst have yet to be instructed as to the nature of our various institutions, some attempt has been made to cultivate the humorous in the shape of a monthly periodical designed to register events and sayings of a humorous character and to give scope to the budding wits for a display of their talents.

As this article is not intended to be a gratuitous advertisement of a sister journal (however meritorious in itself that journal may be), I shall mention no names; only I should advise those to whom the humorous side of things appeals to enquire after the same, and, should fancy prompt them or opportunity encourage, further support the Editorial Staff with an occasional contribution.

The College.

THE idea of a residential college at Guy's, although first projected in the days of Addison, was not carried into effect until 1890, when, built upon a site fronting the east gate of the hospital, and connected therewith by a subway, the College was opened in March, by the late Mr. Gladstone. Residence is afforded here for the men holding the senior house appointments and for about fifty other students, who are all under the supervision of the resident warden, Mr. Dunn. Particulars as to terms may be seen on page 26 of the Green Book. There are a few vacant rooms, for which application should be made to Mr. Croucher, at the Medical School Office.

The College contains also the premises of the Students' Club, in the reading-room of which there is a lending library.

Appointments.

HOUSE APPOINTMENTS.

October, 1898.

The following appointments have been made by the House Committee, upon the recommendation of the Medical Committee:—

House Surgeons.—Mr. C. R. Hodson (Mr. Howes); Mr. C. W. Booker (Mr. Davies Colley).

House Physicians.—Mr. W. N. East (Dr. Pye-Smith); Mr. H. J. Starling (Dr. Hale-White).

Assistant House-Physicians.—Messrs. J. M. Fortescue-Brickdale, F. E. Fremantle.

Assistant House-Surgeons.—Messrs. W. T. Milton, H. W. Bruce (Surgery); Mr. C. Jephcott (Mr. Jacobson); Mr. F. A. Godson (Mr. Symonds); Mr. S. E. Denyer (Mr. Lane); Mr. Edward Evans (Mr. Dunn).

CIVIL.

STURGES-JONES, W. E., L.R.C.P.Lond., M.R.C.S., L.S.A., has been appointed Vice-Consul for the Perené and Chanchamayo Districts of Central Peru, South America.

NAVAL.

SURGEON NORMAN L. RICHARDS has been appointed to the *Dido*, SURGEON HAROLD G. T. MAJOR to the *Isis*, SURGEON GEORGE E. DUNCAN to the *Pembroke*, and SURGEON JAMES S. WATT to the *Wildfire*.

Papers by Guy's Men.

Notes on Bacteriology of the Mouth. By Kenneth W Goady, L.D.S. Eng.—Transactions of the Odontological Society, No. 8 of 1898.

Landry's Paralysis. By Arthur S. Taylor, M.D. Cantab., F.R.C.S. Eng.—*Lancet*, 10th September.

Two Cases of Acute Diffuse Cellulitis of the Submaxillary Region (Angina Ludovici) in which Tracheotomy was performed: Recovery in one. By H. W. Webber, M.S., M.D. Lond.—*Ibid.*, 17th September.

On an Epidemic of Gastro-Enteritis associated with the presence of a variety of the Enteritidis (Gärtner), and with positive Sero-Diagnostic evidence (in vivo and in vitro). By Herbert E. Durham, M.B., F.R.C.S. Eng.—*British Medical Journal*, 3rd September.

Births.

BLIGH.—On September 7th, at Caterham Valley, Surrey the wife of William Bligh, M.D., B.S., of a daughter.

CHAMBERS.—On September 9th, at Beaumont Street, Oxford, the wife of T. Rubery Chambers, L.D.S., R.C.S. Eng., of a daughter.

RYLE.—On August 26th, at German Place, Brighton, the wife of Reginald John Ryle, M.A., M.D. Oxon., of a son.

Marriages.

CLARKE—ATTWELL.—At St. Peter's Church, Morley, by the Rev. F. Sykes, Walter Travers Clarke, second son of John C. Clarke, of Bank House, Morley, to Venie Attwell, fourth daughter the late George Attwell, of Portsmouth.

HUBBUCK—EVERTON.—On 27th inst., at the Parish Church, Avington, Berks, by the Rev. H. D. Grantham, Rector, assisted by the Rev. H. Grantham, Rector of St. Mary's, Chester, Augustus George, third son of the late W. A. Hubbuck, Esq., of Lime Street, City, to Rose Marie Everton, daughter of Thomas Everton, Esq., of Walsall.

Deaths.

KINGSFORD.—On September 13th, at Sunbury-on-Thames, Middlesex, Edward Kingsford, F.R.C.S., aged 81 years.

LIPSCOMB.—On September 21st, at St. Albans, John Thomas Nicholson Lipscomb, J.P., M.D., F.R.C.S., in his 80th year.

ED.—H. L. E.

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Calendar of Coming Events.

October.

Sat. 8.—Messrs. Lucas and Lane's take-in; Drs., D. P. Watson and G. Stewart; Cl., K. B. Alexander.

1.15 p.m. Clinical lecture by Dr. Pye-Smith.

G.H.R.F.C., I., Kensington, home.
II., Kensington, away.

G.H.A.F.C., I., Trial Game, home.
II. ditto.

Tues. 11.—Final Conjoint Exam. begins.
Second part Camb. D.P.H. Exam. begins.

Wed. 12.—1.30 p.m. Clinical lecture by Mr. Davies-Colley.

Tues. 11.—Meeting of the Dental Society at 4.30 p.m.

Wed. 12.—Messrs. Golding-Bird and Dunn's take-in; Drs., H. M. Hardy and W. M. Thomas; Cl., A. H. Carter.

Thur. 13.—G.H.M.P.U., Address by Rev. H. A. Burleigh.

Sat. 15.—1.15 p.m. Clinical lecture by Dr. Pye-Smith.

G.H.R.F.C., I., Lennox, away.
II., Lennox, home.

G.H.A.F.C., I., Old Harrovians, home.
II., First Round Surrey Junior Cup.

G.H.P.P.S., Clinical meeting.

ed. 19.—1.30 p.m., Clinical lecture by Mr. Davies-Colley.

Messrs. Howse and Jacobson's take-in; Drs., A. W. Penrose and L. C. Martin; Cl., G. C. Owsley.

G.H.A.F.C., Hastings, home.

Thur. 20.—G.H.M.P.U., Annual Sermon by Rev. W. L. Mowll, M.A.

Sat. 22.—1.15 p.m., Clinical lecture by Dr. Pye-Smith.

G.H.R.F.C., I., Old Leysians, away.
II., Marlboro' Nomads, home.

G.H.A.F.C., II., Christ College, away.

Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, Guy's Hospital Gazette, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the Gazette *bound should leave them with the Librarian.*

The annual Subscription to the Gazette *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well a subscriptions, should be sent to the Financial Editor,* Mr. C. H. Wells, Secretary's Office, Guy's Hospital.

The charge for binding in blue, with the Arms of the Hospital in gold will be One Shilling and Sixpence.

Guy's Hospital Gazette,

OCTOBER 8, 1898.

The Physical Society.

The Physical Society held its opening night on Monday, October 3rd. Sir Samuel Wilks presided, and there was a large attendance of members. The minutes of the previous meeting having been read by the secretary, and confirmed,

The Chairman said: Gentlemen,—As a matter of duty I am here to-night to open this the first meeting of the Physical Society. I am happy to say I have not been advertised to give an address, nor have I one specially prepared for you; but inasmuch as you invited me here on the present occasion, and a number of new men are here, I may say perhaps just one word to them. First of all, I congratulate you, the young men, on having entered upon a very noble profession, and I also congratulate you on having joined Guy's Hospital. Well, perhaps that is hardly how we should put it—that may be a little invidious; but I should say that if you have been looking round in London, I do not think you could have joined a better institution of the kind. Well, gentlemen, you are going to commence studies which are of a most interesting nature. I am now speaking simply from my own experience and from my own heart, having had a long career in the profession, and what I say is this: you are entering upon one of the most noble and interesting professions You go through your five years' study here, then you are put on the *Register*, and then, of course, as Dr. Johnson or someone else put it, you will have a license to do what you wish in Her Majesty's service—(laughter)—some on horses, some in chariots, and some on foot. Now the object of the medical man has been the same at all times and in all ages, namely, that if a person deviates from a state of health, it is his duty to

put him straight again, to put him back to the position which he ought ideally to hold. And the system of study towards that end is now a rational one. You have got to learn all about the normal human body—a most interesting subject—the anatomy of the human body, and then the physiology. And let me ask you, when you go into the dissecting room, not to be content with merely *seeing* that this is a muscle, or that is a bone, but look at the whole mechanism of bones and muscles, and seek to acquaint yourselves with all the laws of motion. There is nothing more interesting than the study of anatomy, if you take it up according to scientific methods. And then, again, with physiology; such subjects as the composition of blood, animal heat, and numberless others, are full of intense interest. The study of these questions of course obliges you to know something of the other sciences, so that before you begin work you are supposed to know something of physics, and chemistry, and so on. Then when you have done that, you have got to learn all about the diseased body. It is only of late years that this has been achieved, and we have hardly escaped from the trammels of the old system yet. Of course, at all times people had pains and aches and different disorders, but in former days there was no such thing as anatomy or physiology. The methods adopted then were fanciful methods. All the knowledge we had formerly arose out of people's own minds; it was metaphysical or superstitious. It is only in more recent years that we have got positive knowledge. So that formerly there was plenty of physic given, but only on imaginary grounds. If a person had a pain in his side it was rubbed and something put upon it, or dropped into it. Or if a person was yellow, he would be given a yellow plant, or if there was something the matter with his heart, a plant having the shape of a heart would be prescribed. Why I mention this system which formerly prevailed is because it has hardly gone out yet. When, in 1815, it was thought right by the Government to see that men were educated, who were asked to take charge of them? The College of Physicians or Surgeons? No, the Apothecaries' Company, because they made up physic. It was a wrong basis to work upon. I intended to go up for examination, but I did not, and I have got my schedule by me now. (Laughter.) Materia medica was the great thing you had to learn, and when you went up for an examination you were asked to say what ointment this was, or what liniment that was, or what that leaf was and what plant it came from. Well, all that was on a wrong foundation, and it is not altogether gone; we are trying to get rid of it. At the present time the College of Physicians have power to go into any medical man's house and see—what?—that he knows his profession? I remember when I was first apprenticed, the College of Physicians came to my house to see if I understood my profession, and one of the questions asked was whether a decoction of sarsaparilla, which was very valuable, was not made out of birch brooms? (Laughter.) Well, that old fanciful system is hardly got rid of yet. Now, what I want you to understand is, first of all, that you have got to learn all about the human body, and then its functions and physiology. Next you have got to learn how to bring people back to a natural position of health when they have deviated from it; and you have got to learn what the different diseases are, and how people get into an unhealthy condition. Then you have also to learn how into a healthy person diseases may be introduced. Then there is the question of heredity. As regards that our opinions are very much altered. I may say that for many years I have never quite held the idea of diseases being transmitted, as for instance, cancer. You say cancer is in a family. Well, what is transmitted from one person to another under the name of cancer? Not any cell, surely. It can only mean that there is a disposition in that particular family to that disease. And there is in all of us a tendency to degeneration or disease, and especially under different conditions, and I think that is what we mean. If you take physiology it would be absurd to say that, for instance, because some well-known cricketer in Australia has four sons, also expert cricketers, the art which they possess must have been transmitted to them, because where is the cell that contains it? (Laughter.) All it means is that there is the capacity, whatever that is. And so I think in the case of disease. I do not believe that disease is transmitted, but I believe there is a tendency to disease in one direction or another. I remember a medical man telling me that a student was sent to a village to find out in a certain case the family history, what they did, and what they were, and so on. Before he commenced the history in this case, a man close by in the neighbouring house was seen to fall out of the window. Whether he intended to commit suicide, or fell out accidentally, it was not known, but he tumbled out and was impaled on the railing below. The village doctor could not be found at the time, and so the student

was sent for, and he rushed out and went up to the man on the paling (laughter) and asked him if there was any tendency to suicide in his father or mother, and sundry other questions. Now, whatever you do in the course of your studies the great thing is to know exactly how to get practical knowledge. With this in view it is very difficult to tell you exactly in what way to learn. A good deal depends upon the teacher. I remember I used to try and find out what was the most useful knowledge for a man to have, and certainly you must have practical knowledge. I knew a Guy's man whose fortune was made in this neighbourhood because he stopped a bleeding nose and two other doctors could not. With reference to chest disease, only lately I saw a young man who had had influenza and pleuro-pneumonia, and because he now had a cough he was said to be in consumption. Well now, you may go into the question of the heart and know whether it is this valve or that valve that is diseased, but it is not so important as going into a case like this I am mentioning. You find, in going into the case, that it is not phthisis at all, and you tap him and cure him. One man I remember whose life was saved merely because his chest was tapped, and yet the case was said to be phthisis. The other day I was at the seaside and I saw a poor fellow who had been bathing and was brought out of the water apparently drowned. One or two men were trying to resuscitate him. One of them was moving the man's chest and wiping the foam out of his mouth, and ultimately the drowning man recovered. I went up and spoke to this person who was instrumental in bringing the man round, and I ascertained that he was a medical student. I congratulate myself on belonging to a profession of this kind. (Applause.) Well that is the practical side of it. Speaking personally, there has been a great deal said lately about our profession. I read in journals, till I am tired of reading, about our long-suffering profession, and so on. Of course you have got to get your living, and there are difficulties in getting it, but still ours is a noble profession, and you should think of it as such. You are in a village and a man breaks his leg; it is all on one side and you go and make it straight. You do not cure it; nature cures it, but you are helping. Now that is a grand idea compared with the work of a man who is a money-making merchant. One should think of that, and remember what one is engaged in, besides the mere money-making part of it. In concluding, let me say tha medical men will always be wanted wherever people are massed together, and those who work hard will get on, and others will not. I do not think the mass of medical men are sufficiently remunerated, but still I say, enter into your profession with enthusiasm and work hard, and if you lead an industrious and honest life, and a life of integrity, you will prosper. And then if you are practising in any village, and perhaps are the leading man there, remember you have got other things to do. You must maintain and increase the knowledge that you have already acquired. Those, for instance, who have had a classical education and know anything of Greek, let them continue the knowledge of this the most wonderful people that ever lived in the world, as regards their mental and artistic qualifications. Keep up your reading, work hard, be industrious, lead a life of integrity, and you will meet with prosperity in your profession. (Applause.)

Mr. W. H. Crosse then read a paper on

"THE TREATMENT OF MALARIA AND BLACKWATER FEVER."

Sir Samuel Wilks and Gentlemen,—Though it affords me very great pleasure to occupy the position I do to-night, yet when I reflect on my own unworthiness and think of those—Uhtoff, Tyson and others—who have in former years so ably addressed this Society, I feel all the shakings and tremblings of one in the cold stage of my old enemy, malarial fever.

I ask you, therefore, to bear patiently with me while I give you some account of the Niger regions in which I lived for about nine years.

When your secretary, Mr. Targett, spoke to me about this meeting, he said that a short paper giving a general account of Nigeria, and some few notes on its diseases, would be acceptable to you, especially if I could afterwards show you some pictures of the country and the natives.

I propose, therefore, as my time allowance is limited, to read you a short paper, in which, after briefly referring to the Niger, most of my remarks will be directed to a disease which is called Blackwater Fever, and to certain statements which Professor Koch has recently made about the connection between the administration of quinine and this complaint. I will occupy the remainder of my time in showing you some West African lantern slides, nearly all of

which I have myself made; and, if time permits, I may be able to give you some description of matters which the slides will suggest as they are thrown upon the screen.

Medical men have played a very important part in tropical Africa. To-night I need only mention the heroic Mungo Park. Park, about one hundred years ago, discovered the Niger, on his first journey in West Africa. He started from Gambia and struck the river at Segu, the capital of Bambarra. Sick, hungry, and almost naked, and opposed by the natives, he had sorrowfully to leave the Niger and return as best he could to the coast. On his second journey, in 1805, he made a rough boat out of old canoes, this he named His Majesty's ship "Joliba," and in it he literally fought his way down the Niger from the Bambarra country as far as Boussa, where, being attacked by the natives, he jumped into the river and was drowned, and thus the world lost one of the greatest explorers of this or any other age, and medical science one of its most distinguished sons.

Park's last despatch to Lord Camden shows us what manner of man he was. He writes: "My dear friend, Mr. Anderson, and likewise Mr. Scott, are both dead; but though all the Europeans who are with me should die, and though I were myself half dead, I would still persevere, and if I could not succeed in the object of my journey, I would at least die on the Niger."

Park's work was taken up and completed by Richard Lander, who in 1830 followed the river from Boussa to the sea, and thereby for ever solved what had been a great mystery, for it had been thought that it ran either into the Nile or the Congo, or into an inland lake.

The Niger rises behind Sierre Leone. It is over two thousand miles long, runs north-east, then south-east, and finally south; near the sea it divides and subdivides, and encloses a delta covering thousands of square miles, and empties itself into the sea by more than twenty mouths.

Considering recent events, it is well to remember that to our countrymen alone is due the credit of the discovery of this river, and the solving of the Niger problem, though, alas, England at present can only claim a part of this grand waterway, and the country surrounding it.

To the foresight and energy of the Right Honourable Sir George Goldie, the Governor of the Royal Niger Company, is mainly due the fact that the large region recently named "Nigeria," belongs to the British Empire.

For many years there were on the Niger various trading houses; these were amalgamated into one Company, the National African.

In 1886, a charter was obtained and the Royal Niger Company was formed; this Company is a trading one, but it also administers under the Secretary of State for Foreign Affairs, and I am able from personal knowledge to state that it has nobly performed the administrative duties which it undertook when the charter was granted.

When I went to Nigeria in 1886, as the first P.M.O., intertribal wars were common; the weak were oppressed, and the most horrible practices, such as the burning of witches, and the sacrifice of slaves when their masters died, were the rule. I lived long enough under the firm wise rule of the Niger Government to see the old order of things rapidly passing away. To show to you that the task undertaken by the Government has been no light one, I may tell you that I have myself been present in at least a dozen actions in the course of campaigns undertaken by the Government with the view of freeing the enslaved and making the lives of the oppressed more bearable, and establishing law and order.

Since my time, other Guy's men—for instance, Drs. Stanton and Mottram—have been, as the Americans say, "Keeping up our end of the plank."

The West Coast of Africa has a very bad name, in fact, it is called the "White Man's Grave," and it certainly to a large extent deserves it, for it is a hot-bed of Malarial Fevers, which are the great obstacles to efficient, continuous work. Still, alcoholic and other excesses are partly to blame.

On the Treatment of Malaria and Blackwater Fever.

Of the ordinary attacks of this disease very little need be said. They are either remittent or intermittent in type, the remittent being the more serious and frequent. Deaths from these fevers are very rare, though repeated attacks soon break down the constitution, and therefore invaliding is common.

The special form of the disease to which I wish to draw your attention is called blackwater or hæmoglobinuric fever, which is characterised by redness of the urine, jaundice, and in nearly all severe cases, persistent vomiting, generally of green bile; frequent hiccough being not uncommon in dangerous attacks.

The urine may be bright red, like port wine, or so deep in colour that in bulk it looks black,

like stout. Some observers say that they have seen the urine absolutely as black as ink; it is this darkness of the urine which gives the disease its name; the hæmoglobinuria may be continuous or intermittent.

Most doctors are agreed that blackwater fever is not a separate disease, and that it is only a form of malarial fever—a pernicious form—but still a malarial fever. Blackwater fever comes on in those who, from various causes, have become broken down in health. Hardly any European in West Africa escapes malarial fever, and repeated and neglected attacks soon bring on the unhealthy and anæmic condition which appears to be necessary for the appearance of this dreaded complication. It seems to me that there can usually be found, if looked for, some determining cause.

In my own case, while feeling rather unwell from a slight fever, I had to travel for some distance in an open canoe, and my back was exposed for a considerable time to the direct rays of the sun. I began to feel very ill, and on returning to my house, a white man remarked how yellow I was; later on I shivered, had persistent green vomiting and the urine became red; in short, I was down with blackwater fever. The vomiting was so distressing that, at any rate for a time, I could not take quinine or any other medicine.

I could multiply instances like the above; for example, another doctor had a somewhat similar experience, in which a fever patient, being light-headed in the night, walked out into the rain, within twelve hours he was jaundiced, had persistent vomiting and was passing dark, dirty, red urine.

On one occasion I saw a clerk standing on the beach watching a ship being loaded; the man appeared to be rather ill. He informed me that he had felt feverish all day, and yet had stuck to his work under a fierce sun; his skin was yellow, and later on his water became nearly black. I cannot remember whether this man had taken any quinine, but I think that the exposure to the sun during the course of a feverish attack determined the occurrence of the blackwater fever symptoms.

The disease is rare till after the first year of residence, and is unlikely to appear, for the first time, after three years have been spent in West Africa.

Professor Koch, who has possibly spent as many months as I have years in Africa, and who, as far as I know, has not resided for any length of time in West Africa, the home of blackwater fever, has caused a very great deal of anxiety by his assertion that quinine is the cause of blackwater fever in many instances. He says: "This much is certain, that the treatment of blackwater fever with quinine must henceforth cease completely, and that with malaria patients who have had already an attack of blackwater fever, quinine must be used with the utmost caution, or better still, be replaced by something else." Koch, however, does not mention what other drug he would advise.

My experience is that those who take quinine, and take it freely, do not get blackwater fever. In my own case I attribute my attacks—and I have had at least ten severe ones—partly to my neglecting to take quinine, which I dislike very much, and to the fact that very often when unwell, I had to be about attending to others who were more ill than I was myself.

I have at times given very large doses of quinine; for example, I have at one sitting injected 30 grains of the lactate of quinine (under the skin of a sick man), which, I take it, is equal to 60 or 90 grains given by the mouth. but it did not cause blackwater fever.

Two years ago I was very ill, suffering from enlargement of the liver and spleen, and threatened with an ischio-rectal abscess. During my illness, while in a nursing home, I was attacked by malarial fever. Dr. Hale-White prescribed 30-grain doses of quinine, which I took, with the result that I rapidly improved. In this case, surely, many of the conditions were present conducive to an attack of blackwater fever, which I had had often before, even without the quinine which Professor Koch, on insufficient grounds, I think, so readily condemns, and I believe that the large amount of quinine which I took prevented an attack of hæmoglobinuria.

That a malarial parasite has been frequently found in the blood of blackwater fever patients there can be no doubt, and I am certain that a malarial parasite is, under suitable conditions, the cause of hæmoglobinuric fever, in which enormous quantities of red blood cells appear to be broken down in circulation by the plasmodia malariæ.

So great is the destruction of the red cells that some patients sink at once as if from shock, while others die later on from absolute suppression of the urine due to congestion and blocking up of the kidneys by the débris of the broken-down blood-cells. The jaundice is, we believe, a hæmatogenous jaundice and is analogous to the yellowness of the skin caused by a bruise, and to the universal jaundice that may follow

a snake bite; for Thoma has described jaundice due to changes in blood pigment apart from any hepatic disease.

The vomiting of green bile is not easy to explain, and although this symptom is not always present, yet it is so frequent that it is as characteristic of blackwater fever as black vomit is said to be of severe cases of yellow fever.

The complaint is so serious that one can hardly blame quinine for being unable to cure all attacks. But many cases on the Niger have been cured by this drug, not only in my own practice, but in that of my Assistant Medical Officers.

I have just heard from the great explorer, Mr. Stanley; he is of opinion that exposure to sun, fatigue and damp, is the active cause of blackwater fever, and that this disease yields to quinine; in his own attack he did not get well till he took 60 grains of quinine at a single dose.

Dr. Moffatt, P.M.O., Uganda Protectorate, writing in the *British Medical Journal* of September 24th, remarks in the course of his most opportune communication that the pernicious results of Dr. Koch's theory on the lay mind are already manifest, and this is also my belief. He also states that he has "never seen a man die of malaria when quinine had been given properly and early; furthermore, he says that "fatal cases, whether complicated with hæmoglobinuria or not, have been those in which quinine has not been administered, or was given in very small doses, or else resorted to only when the case was practically hopeless." Dr. Moffat treated nine cases of blackwater fever, two died, in both he says, "the administration of quinine was neglected until too late;" the cases which recovered were all treated with quinine, six of them with heroic doses, 60–120 grains in twenty-four hours.

In Africa, the difficulty is to get men to take quinine, and now, fortified by Koch's statement, many men are already refusing absolutely to take quinine.

Professor Koch is much struck with the circumstance that European women and natives are only exceptionally attacked with hæmoglobinuric fever.

This is perfectly true for natives, and this fact about them has been well known for many years.

I do not remember ever having seen a case of blackwater fever in a native (though I am aware that cases have been recorded), but I have given large amounts of quinine to a great number of natives. The reason they do not get blackwater fever is not, therefore, because they do not have quinine, probably it is because no malaria attacks natives, *in their own country*, so seriously as it attacks Europeans.

With regard to European women, Koch's statement is not true; I have seen cases of blackwater fever in European women, and if white women were as much exposed to fatigue, long journeys, chills, etc., as white men are, there is every reason to believe they would have blackwater fever at least as often, for under favourable conditions they do get it.

Thus, when I was surgeon to two Roman Catholic Societies, I saw blackwater fever amongst the ladies of these missions; now these particular women often stayed in West Africa for some years at a stretch; and they were in the habit of going, without having taken food, to mass in the very early morning, when it was dark and the air chilly and laden with moisture. Under these conditions they developed blackwater fever, and it is interesting to observe that they had taken very little quinine.

As showing that blackwater fever does attack women, I may mention that a white lady—who had suffered from malaria—after a bad confinement, which took place in West Africa, rapidly developed blackwater fever and died.

Another case of blackwater fever in a white lady is given in my book, "Notes on Malarial Fever."

Not only do I disbelieve that quinine causes blackwater fever, but I think it helps to cure it and to prevent it; for instance, a great friend of mine after having had many fevers, was attacked by blackwater fever, from which he recovered after the usual treatment by quinine; now, when a patient has had blackwater fever once, he is very liable to have it again and again; I impressed upon him the necessity of taking quinine regularly, and gave him ten grains on two consecutive days each week. The result was highly satisfactory, for though I attended this man for some years, he only had slight and infrequent attacks of fever, and did not again get blackwater fever.

More recently he told me that he had got sick of quinine and had left it off; his fevers returned again and he then began to take quinine, and found that his attacks abated in severity and frequency.

A most instructive case is given in Davidson's work on "Diseases of Warm Climates." The patient, who had previously suffered from three attacks of blackwater fever, in which the hæmoglobinuria always came on *after rigors*, was taken ill on October 29th (first day of fever); he suffered from pain in the right hypochondriac

region, the stools and vomit were bilious, the tongue was covered with greenish fur, there was an icteric tinge of the skin and conjunctiva. Was ordered calomel, and a saline to follow.

October 30th (2nd day of fever).—There was more fever, and the jaundice was deeper. At 9 p.m. 15 grains of hydrobromate of quinine were given.

October 31st (3rd day of fever, 1st of hæmoglobinuria).—At 8 a.m. patient was very much better; at 1.30 p.m. had repeated rigors, and at 4.30 p.m.—about nineteen hours after the quinine had been taken—the urine, which did not contain bile, was hæmoglobinous. The blood was watery, red cells were diminished in number, they had little tendency to form rouleaux, and many of them were deformed; leucocytes were increased.

In the evening the patient took 30 grains of quinine.

November 1st (4th day of fever; 2nd of hæmoglobinuria). At 8 a.m. there was more jaundice, the treatment was continued. At 10.30 a.m. rigors came on again, and at noon port-wine-like urine was passed, and half a gramme of quinine was injected under the skin.

November 2nd (5th day of fever; 3rd of hæmoglobinuria). Jaundice deeper; great prostration; quinine was given hypodermically and by enema. At the usual time—10.30 a.m.—there were repeated rigors, and about noon there was a return of hæmoglobinous urine. 5 p.m., quinine injections were continued.

November 3rd (6th day of fever; no hæmoglobinuria). In the morning 15 grains of quinine were injected below the skin. The fit came on about the usual time, but it was slight, and the urine was only high coloured. At night the urine is said to have been "good;" the doctors *again* injected 15 grains of quinine hypodermically. From this day the patient continued to improve.

Surely as this patient's blackwater fever disappeared while he was taking increasing doses of quinine, we may conclude that the quinine could not have caused it; and that blackwater fever is not, as Professor Koch seems to think, simply another name for quinine poisoning.

I have dwelt long on this subject, for it is of the very greatest importance, and my advice to those going to tropical Africa is not too readily, even on the advice of so great an observer as Professor Koch—for whose opinion we naturally have the very greatest respect—to give up, in blackwater fever, a tried friend like quinine.

Some will ask, Why has blackwater fever become so common recently? The first case on record in the Niger Territories is, as far as I know, my own, some ten years ago. The first case in the Niger Delta is said by some old coasters to have occurred in 1882.

It seems to me that since we have begun to turn up virgin soil for coffee and other plantations, that the disease has become common. When I went to the Niger in 1886, there was not a single plantation. Very soon large plantations were started. I believe I was the first to start them, for I took out with me a great many seeds of English fruit, and soon after these were planted, an experimental plantation was started, first at Asaba, then at Abutshi, some 150 miles up the river.

It is significant that our first three gardeners died of blackwater fever, and that for some considerable time cases only occurred near the plantations, and as plantations became more common, so the disease spread to the other stations in the territories.

Dr. Castellote notes a case in which a white man personally superintended the digging of a grave and stood about in the sun for two or three hours, next day he had severe fever, which subsequently developed blackwater symptoms.

It is generally conceded that the turning up of virgin soil is one of the most fruitful causes of malignant malarial fevers, and numberless examples of this are given in text-books on the subject.

Even now there seems to be a great and unfounded prejudice against the hypodermic administration of quinine. I use the tabloids of lactate of quinine; these are boiled in water and the solution is injected while still warm. If the patient's skin and that of the doctor's fingers is aseptic, and if the syringe is absolutely clean, there is little fear of any bad after effects. Many cases of tetanus are said to have followed the hypodermic injection of quinine; of course, if a dirty syringe is used, and if the bacillus is injected, tetanus is likely to follow.

I firmly believe in quinine as a preventative of malarial fevers. Dr. Cargill has recently returned from the Niger after serving for two years, during which time he was frequently much exposed and had very heavy work to do. During his term of service he took five grains of quinine daily, and though he constantly noted his temperature, he tells me that he never found it above 98·6° Fahrenheit, and that he did not have a day's sickness.

I am far from saying that quinine is the only drug which is of use in malaria, or that alone it

will cure every case. Many drugs find their place—Antipyrin and Phenacetin, Warburg's Tincture, Calomel, Opium, Bismuth, Hydrocyanic Acid, Carbolic Acid, Ammonia, etc., are used at times with very great benefit.

Antipyrin I have largely used to produce free sweating; it is especially useful when the temperature is so high that quinine for the moment seems to be of little service, and it appears to be much safer than Pilocarpine.

Carbolic Acid is said by some to have given very satisfactory results in pernicious fevers.

Opium I have found of very great service. I believe that more than once it has in my own case cut short an attack of fever.

It is a matter of common knowledge, that in the fen-lands of the East Coast till recent years, opium, either in the form of laudanum or the crude drug, was largely used both in the prevention and in the treatment of malaria. I have lived in fen-land, and I know many of the older people who even now take it regularly.

Much interesting information on the use of this drug for malaria can be found in the medical part of the report of the Royal Commission on Opium, so ably written by Sir William Roberts, which should be read by every medical man interested in malarial diseases.

It appears from this report, that after every allowance has been made for errors, that malarial fevers dominate the death-rate in every province in British India, and the people of India have learnt from long experience that opium is helpful in alleviating their sufferings and in preventing a recurrence of feverish attacks; there was a consensus of opinion that in this general sense opium was a mitigator of, and a prophylactic against, malaria.

The chief constituents of opium are morphia and narcotine, morphia being, of course, the active anodyne and hypnotic principle, while narcotine (which in the report is called anarcotine) resembles quinine in being antiperiodic and tonic.

The report refers to two communications on the antiperiodic powers of narcotine, and says that they prove beyond doubt that it is scarcely inferior to, and in some cases, actually superior to quinine.

In Dr. Palmer's report on about a thousand cases, it appears that narcotine cured ninety per cent. of those attacked; furthermore, it states that in certain cases in which there was intolerance of quinine, or where it had been used for a long time without effect, narcotine was superior to it.

In Dr. Garden's report on 194 cases, narcotine only failed in 3·6 per cent. of the cases, and it cured certain cases in which quinine had failed.

The conclusion drawn from the above report was that narcotine in from one to three grain doses, in about three days cut short the paroxysms of intermittent fevers, and completely arrested the disease.

In cases of chronic malarial poisoning, in which the poison lingers about the system for years, the habitual use of opium was found to ward off relapses.

Narcotine, which had been brought into prominence when quinine became dear, some fifty years ago, gradually had its place taken by quinine, when this drug again became cheap, some twenty years later.

Sir William Roberts makes some extremely significant remarks about narcotine, which appear to me to be of the very greatest importance, seeing by whom they are made, and they have only been made after a very long and careful investigation; I give you his own words:—

"— and it is not improbable that . . . . . anarcotine may come to play a larger part in the treatment of Indian fevers in the future than in the past, and that anarcotine may eventually take its place, not as a rival to quinine, but side by side with it as a twin antidote to malarial poisons, each being superior on its own special ground."

To cool water—we can very seldom obtain cold water in West Africa—as an aid to treatment must be given a place of honour.

I am almost inclined to believe that running cool water will alone cure most ordinary fevers. I never had the courage to trust to it only, but I have regretted that in some of my own attacks I did not give the treatment a fair trial.

I had a patient in the medical house at Asaba, his temperature was 107°, and drugs seemed either not to be absorbed, or if absorbed, to be powerless to bring down the temperature. The patient was in a semi-comatose condition, his skin was dry and hot, and as he lay mumbling to himself, his case appeared to be hopeless.

In his room there was a large bath. I filled it with water at about 78° Fahrenheit, and as the patient was so ill, he was lifted on his mattress, in his clothes, from his bed and put in the bath. Instantly an improvement was noted; the temperature began to fall at about the rate of a degree every quarter of an hour, the mind became clear, and before long the

patient, in language more plain than polite, was able to take an intelligent interest in what was being done.

I had several labourers carrying and emptying water into the bath, so that the water, which all the while was running out, was being immediately replaced. A spray of cool water played over the patient's head constantly, and soon he went to sleep in the bath. When he awoke, I gave him champagne and soup, and when the temperature registered 99° in the rectum, he was put to bed.

Whenever the temperature began to rise, the same treatment was adopted, and before long the patient was so well that he was able to take his own temperature, and I constantly found him either dodging into or out of the bath. Within four days he managed to have over thirty baths. This was some five years ago; the man is alive and well and is still on the West Coast.

One more example.

On the way home I chummed up with the ship's doctor, who was an old Guy's man, and he told me that he had on board a missionary who was dying of fever. The history of the patient was that he had come to the coast, had become debilitated with fevers, and had been sent to Grand Canary to recruit; he returned to West Africa and became so ill that almost immediately he was put on board a home steamer as his last chance, though it was hardly to be supposed that he would ever live to see England again.

I saw the patient with the doctor; he lay burning and helpless in the bunk and was at times light-headed; he had lost all hope and all interest in his own case; the temperature stuck at 104° in spite of small perspirations which gave no relief. We filled a bath with sea water, lifted the patient into it, took out the waste plug and turned on the tap. The patient had not been in the water a minute before he began to improve. We lowered the temperature down nearly to normal, then we put him to bed and he broke out into a gentle perspiration and went to sleep. The same evening he was able to take a light meal, and in a few days he was able to sit down with the other passengers at dinner. I heard from him the other day—he is well and strong, and is a hard-working Vicar in Norfolk.

I am indebted to my friend Dr. Cargill, late A.M.O. on the Niger, for the following reports, which I think will be found of great interest at the present time, when so much attention is being given to hæmoglobinuria fever and its relation to quinine.

Case 1.—Patient had been on the river twenty-one months, and was travelling on a launch. Had recently returned from an expedition, entailing a forced march over difficult country. Found him lying down "out of sorts." Temperature 103° F. Gave him antipyrin gr. xv.—N.B. It is not my practice to give quinine at the commencement of a fever.

Three hours afterwards passed a large quantity of pigmented urine (port-wine colour, typical blackwater fever). Patient had had blackwater fever eight months before, was not in the habit of taking quinine regularly; took it when he had fever; *am certain he took none at the beginning of this attack.* The temperature came down to normal within the first twelve hours, and during the remainder of the illness oscillated between 98° F. and 100·5° F.

Vomiting commenced early and lasted throughout the attack, entirely preventing the administration of quinine. The vomited matter was almost pure bile, and was brought up in enormous quantities A little brandy and water was the only thing retained.

There was considerable mental depression. Jaundice was marked on the second day, intense on the third, and continued so. Patient remained in this condition for three days. He passed about six ounces of "black" urine per diem. Vomiting was uncontrollable, asthenia extreme, temperature sometimes subnormal, at others 100–100·5° F.

On fourth day he passed a large quantity of *clear urine*, and could take small quantities of fluids such as cold chicken broth. He continued, however, to bring up bile at intervals, and I found it *impossible to give quinine.* Urine was *again* pigmented with blood on fifth day, though it was not very dark.

Patient became gradually weaker, more listless and apathetic, and he died comatose on the seventh day, temperature in axilla 98° F.

Note.—Quinine was *not administered before the attack, and was not retained during it.* Patient was a keen sportsman, and had incurred several fevers in consequence. He had just returned from an arduous expedition.

Case 2.—Supercargo on one of our steamers during rainy season. Work very trying, necessitating exposure to wet and sun. Patient had had several fevers during his eighteen months on the river. Am not aware that he was in the habit of taking quinine regularly, but very few people in the "Niger" do, as there is a prejudice against it. Had a rigor about 4 p.m. At 6 p.m. passed black water. Arrived at

Asaba by launch, 10 p.m. On arrival, temperature 104° Fahrenheit, great asthenia and marked jaundice. He passed no urine after arrival and died of suppression of urine forty-eight hours afterwards. Temperature at death 106° Fahrenheit. Quinine was given after arrival at Asaba, but he could not retain it, and suppression had already set in.

Note.—Patient was walking about at his duties a few hours before the rigor. It is, therefore, practically certain that he took no quinine *before* the attack. Do not know if he took quinine between rigor and hæmoglobinuria. Men under the circumstances usually take antipyrin. Note, in any case the short interval between rigor and appearance of hæmoglobinuria.

Case 3.—Patient had been eight months out. Had suffered several severe attacks of intermittent fever and had also had dysentery. Was living in the "bush" alone at the time of present attack and had *no drugs* with him.

After a long day's march, during which he had to wade through a stream, he got a typical attack of blackwater fever. I saw him on the third day of the attack. He had the ordinary symptoms of this fever, viz., jaundice, asthenia and hæmoglobinuria. Vomiting was troublesome at first. I started him with fifteen grains in the first twenty-four hours, given in five-grain doses at intervals of eight hours. As the vomiting subsided I increased this to thirty grains in the twenty-four hours during the next three days. The urine "cleared" and the temperature remained at normal after third day of this treatment. He made an uninterrupted recovery. During convalescence he took an iron and arsenic tonic and three grains of quinine three times a day.

By my advice he took quinine regularly afterwards, and when I saw him three months later had had no further attack of fever and looked improved in health.

Note.—I consider quinine killed the plasmodia and freed the blood from an accumulating poison in this case.

Mr. Fremantle, on behalf of the President and Members of the Physical Society, proposed a vote of thanks to the reader of the paper to which they had listened. He called attention to the large numbers of Guy's men at work in various parts of the world, especially in Africa, Empire-making as well as practising, and warmly eulogised the splendid work that they had done and were doing.

Mr. Cleveland seconded the vote of thanks, which was carried with great enthusiasm.

Mr. Shufflebotham then proposed a vote of thanks to Sir Samuel Wilks, for coming so regularly to take the Chair at these meetings. The vote was carried by acclamation.

Sir Samuel Wilks replied, and the proceedings terminated.

Two Interesting Abdominal Cases.

Under the care of Dr. Perry, in John Ward.

C. W., æt. 68, admitted September 10th, 1898. He has been a healthy man and has never had a serious illness. He had been well and at his work (night watchman) until September 5th, when he was very sick, and had very sharp pain in the stomach; these symptoms only lasted a short time and were not severe enough to prevent him performing his usual duties. His bowels were opened that morning.

The next day he felt better, but had occasional attacks of vomiting and some abdominal pain. On the morning of the 7th he passed a small motion, and during the day was better; but in the evening he felt very much worse, and, as he was no better on the 8th, he consulted a doctor.

He went to his work that night, but the vomiting became worse, and he was so ill, that he with great difficulty returned home in the morning. The vomit had become brown and had a very offensive odour. He got about a little on the 9th, but did not go to his work that evening; on the 10th the doctor advised him to go to the hospital.

He was brought here about 11 a.m. on the 10th and was admitted. He could walk by himself, and insisted on undressing with scarcely any help. His radial pulse was scarcely perceptible, his hands and face felt cold and clammy, but his axillary temperature was 101° F.

His mental faculties appeared to be unimpaired, he answered questions readily and took notice of what was going on around him; he said that the "pain was not as bad now as it had been," but he was much distressed by the vomiting. The vomit was dark-brown in colour, had a fæcal odour, and was very offensive.

His skin had a dusky hue, his eyes were sunk, his cheek-bones prominent, and he was breathing rapidly. He could lie most comfortably on his right side, and on turning on to his back in order that he might be examined he vomited, and said that he could not lie like that; he, however, did so for a short time.

The abdomen was full but not much distended, and no coils of intestines or peristaltic wave could be seen. The skin over the abdomen was reddened from turpentine stupes.

On palpation, the abdominal wall was not very tender and not very hard; it did not move with respiration. Nothing could be felt per rectum; his bowels had not

been opened since the 7th, and he said that he had passed no flatus.

A diagnosis of acute intestinal obstruction was made, and Mr. Symonds was sent for. He thought patient was too ill for an anæsthetic or any prolonged operation, and advised that a small incision should be made and a loop of intestine brought into the wound and drained with a Paul's tube, hoping that this would stop the vomiting.

This was done. The skin below the umbilicus was rendered insensitive with Ethyl Chloride, a loop of small intestine was opened and a tube inserted. A considerable quantity of yellow fæcal contents escaped. Shortly after the operation patient vomited once, and then said that he felt better and asked for some tea. He eagerly drank two cups of tea, his pulse somewhat improved, and he was more comfortable. He remained in this state until five o'clock in the afternoon when he again vomited, and died at 5.30.

On admission he was given hypodermic injection Ether ɱxx.; at noon he was given hypodermic injection Liq. Strychninæ ɱv.; at 2 p.m. he was given hypodermic injection Ether ɱxx.

At the autopsy, made by Dr. Perry, no pathological lesion was found to account for his death. The alimentary tract was normal throughout, there being no band, stricture, hernia, growth, adhesion, or intussusception. The mucous membrane of the stomach and intestines showed no signs of inflammation; there was no peritonitis; the kidneys were normal.

J. L., æt. 30, a printer, admitted September 16th, 1898. No reliable history could be obtained, as he had been living by himself, and rarely spoke to the other people in the house, his brother could give no information as he had not seen patient for five months, and he was too ill to do more than answer "yes" or "no" to a few questions. He seems to have been fairly well and his bowels regular until the 14th, when he felt ill, had a good deal of abdominal pain, vomited several times and his bowels were not opened. He kept at his work that day, but he was so ill all night that he did not go to work next morning; he, however, was about out of doors part of the day.

Pain and vomiting were so persistent during the night of 15th, that a doctor was called in the next morning, who advised that he should be taken to the hospital.

He was brought here at 10.30 a.m., and in the surgery a right inguinal swelling was found, but as this was easily reduced, it was thought not to have anything to do with his condition, and he was admitted into John ward.

On admission, he, although in a moribund state, was quite sensible, his skin was dark and of an earthy hue, his eyes were sunken, his cheeks prominent, and his expression anxious. His tongue was brown and dry.

He lay on his left side with his legs drawn up. He was evidently so ill that unless he rallied he could not live long, so only a brief examination was made. He vomited several times small quantities of dark-coloured, fæcal smelling stuff, and said that he had no pain now. His abdomen moved on respiration, it was neither distended or retracted, and although it was held somewhat rigidly, it was not hard, and could be palpated without causing any pain; no tumour could be felt. His temperature was sub-normal, the radial pulse could not be felt.

Over the apex of the left lung in front, bronchial breathing and consonating râles were heard.

His bowels had not been opened since the 14th, and on rectal examination only fæces were felt.

Dr. Perry was in the ward when patient was admitted, he advised a hypodermic injection of Liq. Strychninæ ɱv., Tinct. Digitalis ɱxv., and advised that nothing should be done unless patient rallied.

Patient shortly after this passed a motion consisting of some formed and fluid fæces, and about fifteen minutes later he passed another small fluid motion.

He did not rally and died at noon.

At the autopsy made by Mr. Levick, nothing was found in any organ which would account for his death.

At the apex of the left lung there was a small cavity with tuberculous changes around it, the rest of the lung was normal.

There was no intestinal obstruction or inflammation. The kidneys were normal. J. A. G.

[The two cases reported above are so interesting and so obscure that we should like to hear if any readers of the Gazette have met with similar cases, or if any suggestions as to the cause of death could be made.—Ed.]

A Case of Appendicitis with Perforation and Death.

F. W., a boy, aged 10 years, was admitted to the Royal Hant's County Hospital, on August 30th, for pain and swelling in the right iliac fossa. The child's mother gave the following history of the case:—

On two or three previous occasions the boy has complained of pain in his "right side," and has been sick and constipated with the attacks, but no medical aid has ever been called in as he was supposed to be bilious, and was treated by doses of castor oil. Up till August 27th the boy had been quite free from "any attacks" for some time, but on being put to bed he complained of a pain in the right side, and he was sick; he was given some castor oil, and his bowels acted during the night, but the pain still remained in the side. A medical man was not called in to see him until the morning of the 30th, and on his advice the patient was sent to the hospital.

On admission, the temperature was 102°, his pulse 120, and respirations 25. He lies on his back with the knees slightly flexed, and says that he has only a little pain which is like "the stomach ache." His tongue is furred but moist, and he is slightly flushed. The abdomen is

not distended, and it moves on respiration; it is nowhere tender except in the right iliac region, where there is a distinct tumour the size of a large egg, elongated in shape. It lies about midway between the right anterior superior spine and the umbilicus, but the greater portion of the tumour lies below the line between these two points; it is tender to touch and to percussion is dull, but there is an area of resonance between it and the umbilicus, and between the tumour and the right anterior superior spine. The bowels have been opened since admission, and the stool was loose and dark in colour. The patient was put on a milk diet, and hot fomentations applied to the abdomen every two hours. No opium was given as the pain was not severe.

August 31st. The patient slept well and took plenty of nourishment; there are no changes in the patient's condition to note. The temperature is 102° and the pulse is 106.

September 1st. The patient passed a good night and slept well until 6 a.m., when he vomited some undigested milk; his next feed was diluted, and this he kept down. At 8.30 a.m. patient was rather restless and vomited some dark-coloured fluid. His legs are now drawn quite up, and on examining the abdomen it is found slightly distended, and patient is breathing entirely with his thorax; there is dulness on percussion from the umbilicus to the bottom of the abdomen, but the patient says he has no pain and his mind is quite clear. His temperature is 102.8°, pulse 106, good and regular. It was decided to get the surgeon for the week to see the patient; this was done and an exploratory incision was agreed upon, but permission to operate had not been obtained, and more than three hours elapsed before the parents' consent could be obtained. In the meantime the lad got very rapidly worse, and began vomiting very frequently and died at 12·40, the temperature just before death running up to 106·8°.

Autopsy.—On opening the abdomen a quantity of foul, yellow-coloured fluid escaped, and recent lymph was found on and between the coils of intestines, the omentum being slightly adherent to the intestines. In the right iliac fossa a mass of omentum the size of a large egg and somewhat sausage-like in shape, was found adherent to the anterior abdominal wall, at a spot about midway between the umbilicus and the right anterior superior iliac spine. On examining the mass the appendix was found to be almost entirely embedded in it, except at the posterior part, where there was a small sinus-like opening about the size of a goose quill, running down through the mass to the buried appendix. On cutting through the mass, about two-thirds of the appendix (which was a long one) was found in it, and the distal end of the organ was dilated and very gangrenous. It was lying in a small cavity filled with a foul black fluid, and a small opening was found in the gangrenous portion communicating with the sinus-like opening mentioned above. The rest of the appendix had its walls greatly thickened, but the lumen was not obliterated. In the dilated end of the appendix a small quantity of soft fæcal matter was found. The whole of the cæcum was firmly bound down to the posterior part of the pelvis by old adhesions.

The above are a few notes of a case I thought might prove interesting to readers of the Gazette, and there are many instructive points. The previous attacks the patient had must have been severe ones, as instanced by the toughness of the adhesions found, and yet the mother declares that the patient was never kept in bed for more than a day, and that castor oil always cleared away the attacks. It seems incredible that a child of such tender years could have so much mischief present and yet keep about. The shape which the tumour took was interesting, and suggested intussusception. That the diseased appendix perforated in this case there can be no doubt, but when it did so would be difficult to determine, for none of the signs of perforation given in the text-books were present; there was no sudden pain or alteration in temperature or pulse rate, and frequent vomiting did not set in until an hour before his death. It is possible that if the abdomen could have been incised and washed out when the first unfavourable symptoms presented themselves, that the case could have been saved, but unfortunately the parents' permission could not be obtained soon enough to operate with any fair chance of success.

E. F. CLOWES.

Chapel News.

The Rev. C. H. Bowden has surrendered the Chaplaincy upon his preferment to the Vicarage of St. Paul's in Bermondsey. The Governing Body have vested the Chaplaincy in the Bishop of the Diocese, who has appointed the Rev. Herbert Edward Gunson as Acting Chaplain until Christmas, when further arrangements will be made. Mr. Gunson resides at the Collegiate House in St. Thomas's Street.

The Church Council will meet on Friday evening, October 7th, at 8.15, when the attendance of Members is particularly requested.

The Dressers' Rooms.

LIST OF SUBSCRIPTIONS.

The following subscriptions have been received since the list appeared in the last Gazette.

	£	s.	d.
G. E. Richmond	0	2	6
F. E. Walker	0	2	6
J. M. F. Brickdale	0	2	6
J. P. Pendlebury	0	2	6
A. H. Tubby	0	2	6

The list is now closed.

F. S. BATCHELOR.

October 6th, 1898.

Passim.

The House Dinner on October 3rd was most successful this year, over a hundred Guy's men, past and present, sitting down to dinner. The table was graced by the presence of Sir Samuel Wilks and Mr. Cosmo Bonsor, and many members of the Staff, together with many well-known Guy's practitioners from London and the provinces. Dr. Pye-Smith was to have taken the chair, but at the last minute he was prevented from coming down. So his place was very ably filled by Mr. Symonds.

As is customary, there was practically no after-dinner oratory, with the exception of two short but excellent speeches by Mr. Symonds and Mr. Bonsor, the latter of whom regretted his inability to stop to the meeting of the Physical Society afterwards.

The dinner itself was the best we have eaten in the College for some long period, and the room was most tastefully decorated, and Miss Moore has our heartiest congratulations. We hope that now the slack season is over she will find the business of catering less anxious than it has been just lately.

Mr. W. H. Crosse made a most valuable addition to the long list of famous papers read before the Physical Society in his note on the "Treatment of Malaria and Blackwater Fever," which will be read with great interest by all who have ever worked in tropical climates, especially the West Coast of Africa. In the light of recent statements by Professor Koch concerning the relation of quinine and hæmoglobinuria, Mr. Crosse's remarks are most valuable, as he speaks from the long and personal experience of a medical practice in districts where these two diseases are most prevalent.

And when he had finished the paper and turned to the lighter labour of showing photographic lantern slides, nothing could be more admirable than his subtle sense of humour, chiefly shown by his inimitable manner of stopping short just where the joke should come and leaving it to the imagination of his audience. We imagine some of his apparently casual remarks about the cocoa-nut palms will become historic. We can only wish for a teacher of tropical medicine as sound and entertaining as Mr. W. H. Crosse.

Our heartiest congratulations to Mr. Fripp on the announcement in the *London Gazette* of September 30th that the Queen has been graciously pleased to appoint him a Member of the Fourth Class of the Royal Victorian Order.

From all we have heard, Mr. Fripp fully deserved the honour, as he spent a hard and anxious six weeks achieving such an eminently satisfactory result. After all, to any medical man the best reward he can wish for and the most satisfying is such a rapid and uninterrupted recovery as Mr. Fripp obtained for his illustrious patient.

We congratulate the successful candidates for the Entrance Scholarships. To have started a career at Guy's in such a noteworthy manner is an achievement to be proud of, and these gentlemen will find that it will serve them in good stead throughout their hospital life. Mr. French, who won the Scholarship for University Students, was at school at Dulwich, and has since had a very distinguished career at Oxford, besides being a sound football player.

Mr. E. A. Minchin, M.A., of Merton and Keble Colleges, Oxford, has been appointed Lecturer on Biology, in the place of Mr. F. E. Beddard, and commences his duties this session.

The Bishop of the Diocese has appointed the Rev. Herbert Edward Gunson as Acting Chaplain to the Hospital till Christmas next, when further arrangements will be considered. Mr. Gunson resides at the Collegiate House in St. Thomas's Street.

About a month ago we published in the Gazette a complaint in connection with the difficulty of accurately determining the Sanitary District in which any given street belonged, and the confusion consequently met with in signing up infectious diseases. We are happy to say that we have not called aloud in the wilderness in vain, as through the kindness and courtesy of Mr. Percy J. Edwards, Clerk to the Improvements Committee of the London County Council, we have been put in possession of the information we so sorely needed. We hope this gentleman will accept our heartiest thanks.

Again and again it is our proud duty to call attention to the frequent and conspicuous acts of gallantry displayed by Guy's men in the Medical Service of both the Army and Navy. In

another column to-day we publish a short notice of the magnificent heroism of Surgeon William J. Maillard, of H.M.S. *Hazard*, in the recent ugly fight at Candia. Only the other day we were mentioning the case of Captain Beyts, R.A.M.C., who apparently has not got the notice he deserved; and news has just reached us from the Soudan of the distinguished service of Surgeon-General H. S. Muir and Captain C. S. Spong, R.A.M.C. An eye-witness at Candia says that Surgeon William J. Maillard ought to have the V.C., and it is rumoured that Surgeon-General Muir will be awarded the Distinguished Service Order.

By the sad death of George Lewis the musical world at Guy's will lose a prominent member. Directly he came up to Guy's he was noticed at once for his fine voice, and was a regular and useful member of the Disguysed Minstrels. He also sang in the Nurses' Choral Society for the last two years, where he will be keenly missed. Steady, reliable and very enthusiastic at whatever he took up; he was always a man to be relied upon in a moment of need.

After a long vacation of some three months, the staff of the *Guyoscope* have pulled themselves together and produced the October number. Considering the long holiday that these jesters have had, we hardly think their production is up to its usual high standard, but it is a matter of common knowledge that the most brilliant work ever done by witty writers has been the result of the urgent necessity for immediate production. A prospect of three months in which to write something funny is of no use to the professional humorist; it is only in the last despairing forty-eight hours that a bright idea strikes him, and he is left no time to spoil it by cold-blooded consideration. The *Guyoscope* would contain better stuff if it were produced inexorably once a fortnight.

To come to detailed criticism: the drawings by Sichel are excellent, the caricature execrable, and the other illustrations are obviously badly reproduced. The best piece of writing in the number is "A Tragedy, by one of Three," excellent for both vivid imagination and terseness of style, we should like to see more by this evidently new acquisition to the staff. We have the authority of Messrs. Ash & Co. to say that the silly *canard* concerning the Reports is both incorrect and unfounded.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Cases under Dr. Pye-Smith.

Philip	21.	Congenital heart.
	22.	Mitral stenosis. Emphysema.
	23.	Acute rheumatism. Mitral regurgitation.
	24.	Left broncho-pneumonia.
	26.	Phthisis.
	27.	? Phthisis.
	28.	Mitr. sten. and reg. Tric. reg. Pericarditis. Pleuritic effusion.
	29.	Left pleuritic effusion.
	33.	Carcinoma ventriculi.
	34.	Acute rheumatism.
	35.	Acute pericarditis.
	37.	Phthisis. Tubercular laryngitis.
	39.	Spastic paraplegia.
	40.	Right pleuritic effusion. Calcareous arteritis.
Mary	26.	Hæmaturia. Albuminuria.
	28.	Ulcerative endocarditis.
	31.	Mitral stenosis. Tricuspid regurgitation.
	34.	Broncho-pneumonia. Fluid at right base.
	35.	Enterica.
	36.	Growth. ? Pyloric.
	37.	? Ulcerative endocarditis.

Cases under Dr. Taylor.

Mary	38.	Pneumonia. Convalescence.
	40.	Renal tumour.
	41.	Left hemiplegia.
	42.	Enteritis.
	43.	Phthisis.
	44.	Enterica. Relapse.
	45.	Chorea.
	46.	Bronchitis.
	47.	Pneumonia.
	48.	Gastro-enteritis.
	50.	Malignant disease of bladder.
Stephen	1.	Lobar pneumonia.
	3.	Cirrhosis of liver. Enlarged spleen.
	5.	Mitral stenosis.
	6.	Bronchitis.
	7.	Empyema.
	8.	Aortic disease. Lateral curvature.
	10.	? Carcinoma of stomach.
	11.	Mitral regurgitation.
	13.	Pernicious anæmia.
	16.	Acute nephritis.
	19.	Diarrhœa and emaciation.
	20.	Diabetes mellitus.

Cases under Dr. Goodhart.

Philip
1. Phthisis. Lardaceous disease. Jacksonian epilepsy.
4. Enteric fever.
6. Infective endocarditis.
9. Tubal nephritis.
10. ? Mycosis fungoides.
12. Diabetes mellitus.
13. Chronic tubal nephritis.
15. ? Aneurysm of ascending aorta.
17. Mitral stenosis and regurgitation. Tricuspid regurgitation. Adherent pericardium.
18. Phthisis. Pericarditis. Alcoholic neuritis. Enlarged liver. Hæmorrhage per rectum.
19. Apical pneumonia.
20. Plumbism.

Mary
13. Cirrhosis of liver. Perihepatitis. Enlarged spleen. Ascites. 360 ounces withdrawn.
14. Movable kidney.
21. Vomiting. ? Cause.
22. Chronic pleurisy. ? Fibroid lung. Enlarged kidney.
23. Hysteria.
24. Chronic Bright. Cardiac failure.

Cases under Dr. Hale White.

Stephen
21. Progressive muscular atrophy.
22. Sciatica.
23. Cirrhosis. Necrosis of head of humerus.
25. Enterica.
26. Enterica.
27. Phthisis. Hæmoptysis.
29. ? Osteo-arthritis. (Æt. 7.)
30. Enterica.
32. Ascites. ? Tubercular peritonitis.
33. Acute rheumatism.
35. Mitral stenosis and regurgitation.
37. Cirrhosis. Ascites.
39. Phthisis. Tubercular laryngitis.

Mary
1. Appendicitis.
3. Osteo-arthritis.
4. Appendicitis.
5. Chronic uræmia. Dyspnœa.
6. Exophthalmic goître.
7. Infantile paralysis.
8. Chorea.
11. Portal septicæmia. Convalescence.
12. Chronic nephritis.

"Clinical."

John
1. Right basal pneumonia. Convalescent.
2. Strong ammonia poisoning.
4. Rectal abscess.
6. Fibroid lung.

John
8. Empyema.
10. Bronchial asthma.
11. Intestinal obstruction. Laparotomy. Convalescent.
12. Enlarged spleen. ? Leucocythæmia.
13. Pneumonia. Convalescent.
14. HCl. poisoning.
15. Phthisis.
16. Hemiplegia.

Miriam
20. Pericarditis.
21. Mitral regurgitation. ? Stenosis.
22. Pneumonia. Convalescent.
23. Dilated stomach. Cicatricial stenosis.
24. Typhoid. Convalescent.
25. Tonsillitis. ? Diphtheritic.
26. Appendicitis. Convalescent.
27. Lobar pneumonia. Convalescent.
28. R. apical pneumonia.
29. Abdominal pain. ? Ovarian cyst.
30. Dilated stomach. ? Cause.
31. Mitral regurgitation and stenosis.
32. Marasmus.

Cot
34. Capillary bronchitis.
35. Tuberculous broncho-pneumonia.
36. Broncho-pneumonia.
37. Lobar pneumonia.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman
2. Tuberculous glands.
3. Appendicular abscess. Incised.
4. Submastoid tumour. Parotid adenoma.
5. Stricture.
6. Genu valgum.
11. Stricture.
13. Renal calculus.
14. Enlarged prostate. Much hæmaturia.
14. Infantile paralysis. Stokes' Gritti's amputation left leg.
15. Irreducible inguinal hernia.
16. Epithelioma of lip. Excised,
18. Sarcoma of superior maxilla. Excision of upper jaw. Death.
19. Contracted knee.

Charity
6. Lipoma of abdomen. Excised.
8. Severe epistaxis.
8. Mastoid abscess.
9. Tuberculous knee.
11. Chronic ulcer of leg.
12. Contracting scar in palm.
14. Æt. 75. Duct carcinoma of breast. Excised.
17, & Clin. P.R. Renal calculus. Atrophied kidney. Nephrectomy.
18. Strangulated femoral hernia. Kelotomy.
19. Carcinoma mammæ.

Cot
E. Bitten tongue. Hæmophilia.

Astley Cooper 6. Fractured base. Cerebral irritation.
7. Subdural hæmorrhage. Trephined. Death.
11. Intracapsular fracture of neck of femur.

Cases under Mr. Davies-Colley.

Luke 2. Submaxillary adenoma.
3. Old mastoid disease. Antrectomy and cerebral exploration. Death (basal meningitis).
9. Necrosis of upper jaw after smash.
10. Chronic palmar tenosynovitis.
11. Recurrent melanotic sarcomatous glands.
11. Vesical calculus. Litholapaxy.
18. Periosteal mandibular abscess.
21. ? Separated upper epiphysis of femur. ? Coxa vara.
21. Stricture of œsophagus (malignant).
Lydia 1. Penetrating wound of knee. Suppurative arthritis.
4. Rodent ulcer on face.
5. Ectopion vesicæ. Plastic operation.
6. Submaxillary calculus. Suppurating cyst of gland.
8. Fractured neck of femur.
Cot A. Laryngeal stenosis after scarlatinal ulceration. Exploration and intubation.
Cornelius 1. Cut ulnar nerve and flexor carpi ulnaris tendon.
5. Ruptured ligamentum patellæ.
7. Fractured ribs, severe.
8. Fractured pelvis.
16. Cut throat. Death from shock.

Cases under Mr. Lucas.

Job 6. Epithelioma linguæ.
19. Æt. 53. Acute pain in hip. ? Osteo-arthritis.
20. Spinal caries.
22. Epithelioma of abdominal wall.
Lydia 11. Tumour on forehead. ? Sarcoma.
16. Retained testes and congenital hernia.
Charity 1. Recurrent varicose veins after Trendelenburg's operation.
2. Early hip disease.
21. Irreducible umbilical hernia (obstructed).

Cases under Mr. Golding-Bird.

Lazarus 5. Æt. 52. Myeloid sarcoma of lower end of humerus. Enucleated.
8. Pharyngeal gummata.
10. Tuberculous knee.
15. Vesical hæmaturia. ? Villous tumour.
16. Tuberculous knee.
16. Sarcoma of testis. Æt. 27. Secondary growths in lung. Death.
17. Irreducible inguinal hernia.
Lazarus 21. Hæmarthrus. Traumatic.
21. Syphilitic orchitis.
Martha 5. Old fracture of patella. Wired.
6. Recurrent sarcoma of parietal bone.
8. Bilateral synovitis of knee. Fatty fringes.
18. Sacro-iliac disease.
20. Strangulated femoral hernia.
22. Ankylosed tuberculous hip.
Cornelius 1. Lacerated wound into elbow-joint.
9. Separated lower epiphysis of humerus.

Cases under Mr. Jacobson.

Naaman 20. Epithelioma of bladder.
21. Epitheliomatous glands in neck. Secondary to soft palate.
Patience 2. Acute infective periostitis of femur.

Cases under Mr. Symonds.

Job 10. Deflected septum nasi.
11. Deafness. ? Post-nasal growths.
Martha 14. Nasal polypus.
Luke 15. Recurrent appendicitis.
16. Epithelioma of œsophagus. Gastrostomy.

Cases under Mr. Lane.

Job 12. Chronic necrosis of ulna. Fracture.
13. Tuberculous knee.
15. Talipes equino-varus.
Dorcas 5. Movable kidney. Nephrorraphy.
Samaritan 7. Epitheliomatous ulcer on buttocks. Paraplegia from spina bifida.
Patience 1. ? Pelvic cellulitis pointing over hip. incised.

Cases under Mr. Dunn.

Lazarus 3. Recurrent appendicitis. Appendicectomy.
Martha 12. Femoral irreducible hernia.
Cot C. Pes cavus. Hallux erectus.

Case under Dr. Perry.

Abdominal Abscess. Communication with Duodenum.

Stephen 14. William C., æt. 30, a clerk, was admitted on August 5th, 1898, for pain in right hypochondrium.

Family history.—One sister is supposed to be suffering from cancer in the abdomen.

Previous history.—Patient was seven years in India, returning in 1895. While there he never enjoyed good health and had several attacks of dysentery. In 1893 patient had enterica; eight months ago he had a slight attack of dysentery; in June, 1896, had a severe attack of influenza. Seven years ago while in India he had a severe attack of hæmatemesis. He has never been jaundiced.

Present illness began seven months ago. Was feeling unwell for some time before he noticed a dull aching pain in right hypochondrium which extended round to the back. This was accompanied by vomiting. A large

swelling then appeared in this region, reaching nearly as far as crest of ilium. Swelling was very tender and is said to have dispersed three months ago. Patient had no diarrhœa, sickness, nor cough at the time.

On admission.—Temperature 101·6°; respiration 40; pulse 124. Patient is anæmic and wasted.

Alimentary system.—Tongue clean; bowels regular. Patient was twice sick soon after admission.

Abdomen. There is no distension or localised bulging. Tenderness in right hypochondrium and especially in right nipple line, two inches below right costal margin. There is also tenderness just below the left costal margin. Some rigidity on right side. Liver dulness extends from sixth rib in right nipple line, down to level of umbilicus; epigastric region, and rest of abdomen quite resonant. Splenic dulness normal.

Circulatory system.—Pulse 124 regular, compressible. A systolic murmur is heard in second left intercostal space, otherwise heart is normal.

Respiratory system.—The intercostal spaces are sunken. Equal movement on the two sides, and normal physical signs over both sides of chest in front. *Behind* on the right side there is dulness at the level of the eighth dorsal vertebra, reaching its highest point about at the eighth rib behind, so that upper limit of dulness is convex upwards. Over this dull area there is deficient entry of air and deficient voice sounds. There is tenderness and hyperæsthesia over lower right intercostal spaces in axillary line.

Urine contains a slight trace of albumen.

August 8th.—Pain not so severe, in front now. The dulness on the right side extends from the fifth rib and extends down to two inches below costal margin. Just below the ensiform cartilage in epigastric area a tympanitic note can be obtained. The dulness behind is continuous with that in front.

9th.—Temperature to-day has reached 101·4° Patient has less pain.

10th.—Temperature 102·4°, pulse 108, respiration 20. The dulness is higher in the axillary line, but still at the eighth rib to scapular line. T.V.F. absent, and breath and voice sounds deficient.

11th.—Impaired resonance behind up to seventh rib. Tenderness most marked in posterior axillary line.

12th. There is some reddening of the skin in axillary line, corresponding to the hyperæsthetic area over the tenth, eleventh and twelfth ribs.

13th.—Blood examined. Corpuscles 60 per cent. No leucocytosis. Temperature 103·4°.

14th.—An exploration made into ninth space and pus drawn off. A.C.E. administered, and an incision one and a half inches long made into ninth intercostal space, down to the abscess. Thick inspissated pus let out, and finger in cavity shewed it to be lined with soft membrane. Pus foul and greenish in colour. Two large drainage tubes inserted and sewn in. Dressings then applied and patient put back to bed. Pulse became rapid and feeble. Liq. Strych. ɱv. injected. A large quantity of pus escaped, and wound had to be dressed frequently.

15th.—Patient much easier. Temperature 100°, pulse 100. Very thirsty.

16th.—Still a large amount of discharge. Area around wound much less tender.

17th.—Pus is sour smelling and acid in reaction. No absolute liver dulness made out, and a tympanitic note now made out below right costal margin. The skin around the wound and on the right side of back is inflamed.

18th.—As it was thought that the abscess might communicate with the alimentary tract, Tinct. Lavendulæ Co. ʒii., Syr. ʒj., and Decoc. Hæmatox. ʒj., in form of a draught was given.

About two hours after administration the pus was found to be stained of a brown colour.

21st.—Patient gradually got worse and died.

Autopsy.—Several ounces of clear serous fluid in pericardium. Some compression of right base of lung. *Stomach.*—Mucous membrane pale but healthy. *Duodenum.*—The abscess had communicated by two large openings with the junction of first and second parts of duodenum. *Right kidney.*—Anterior surface found forming part of abscess wall. Surface shaggy and covered with pus. Substance healthy. *Intestines.*—Appendix normal. Healing dysenteric ulcers of cæcum ascending colon; right supra-renal not found. Left supra-renal and left kidney both healthy. *Liver.*—Under surface of right lobe formed part of wall of abscess. No abscess in substance of liver, which appeared healthy.

Case for Diagnosis.

J. H., æt. 27, was admitted on September 20th, 1898, suffering from a right-sided scrotal swelling. Patient has one child; both his parents are dead, the cause of their death not known. Patient says he has always enjoyed good health, and denies having ever had gonorrhœa or syphilis, though he admits that he had a soft sore on his penis three years ago. The present trouble began four months ago, when patient first noticed the right testicle was larger than the left. Since that time it has been gradually increasing in size, till about a week before admission, when an apparent standstill was reached. There was no history of injury. During the four months patient has been "spitting up" blood. He has never at any time suffered any pain.

On admission.—There is a swelling, limited to the right side of the scrotum. The skin is not reddened or œdematous, and is nowhere adherent to the tumour. No impulse is transmitted on coughing, and the swelling is not translucent. The tumour is oval in shape, two and three-quarter inches long, and one-and-a-half inch in breadth. It consists of numerous rounded nodules, situated chiefly in the epididymis, towards its upper part, but also in the body of the testis. The body of the testis was softer than the rest of the tumour, and situated below and in front of the main mass. There is a well-marked groove separating the testis from the epididymis.

The groove is most distinct in the middle, less so at the upper and lower parts of the testicle. The testicular sense is entirely absent on both sides. The cord and the vas are normal. The left testicle is not enlarged, and appears normal with the exception of the loss of the testicular sense. No glands could be felt in the groin. On rectal examination the prostate and vesiculæ seminales were normal. There is a scar of a chancre on the glans penis. No nodes are to be found. There is no evidence of old iritis, but there is choroiditis and optic neuritis. Hard glands are to be felt below the ear and behind the ramus of the jaw on both sides. There was no dulness over the chest. Râles are heard over both lungs, most marked at left apex. There is a well-marked pleuritic rub audible on the left side of chest, but no pain is present, and patient does not complain of any previous attack of pain in chest. Pulse 74, temperature 98·6°, respiration 20.

September 23rd.—Patient complains of headache and sickness. After vomiting he generally spits up a little blood. Temperature subnormal.

24th.—There is a fair amount of expectoration, in which no tubercle bacilli could be found microscopically. Temperature subnormal.

25th.—Patient complains of intense abdominal pain on right side. There is some rigidity of the recti muscles, especially on the right side. There is no distension of the abdomen. Temperature subnormal. Ordered Mist. Opii. Acida. ʒi.t.d.

26th.—Vomiting still continues, but is infrequent. Temperature subnormal.

27th.—Patient still complains of intense abdominal pain in the right loin. Râles all over the chest. No bronchial breathing to be heard. Temperature 101°F. at 10 p.m.

28th.—Patient is much worse this morning. Temperature 98°F. He is unconscious, and has been groaning and crying out most of the night. There was a slight attack of epistaxis this morning.

12 a.m. Patient's left arm is weakened, but he can move it. The left leg is less irritable than the right, though it can be made to move. Knee-jerks are present and normal. There is right lateral deviation of the eyes. Pulse 120-130, respiration 36, temperature 100°F. The ophthalmoscope showed right optic neuritis and choroiditis. The abdomen is neither rigid nor distended. There has been constipation for two days, and a turpentine enema last night gave no result.

12.30 p.m. Patient is somewhat cyanosed; he cannot be roused. He was fed through a nasal tube, which he resisted violently, and which seemed to exhaust him. He has been restless and groaning all morning. No convulsions. Patient died at 2 p.m.

(*For result of autopsy see page* 448.)

NOTICE TO CORRESPONDENTS.

The Editor wishes it to be understood that no communications can be inserted which are not guaranteed by the name of the sender. All articles must be written on one side of the paper only.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Medical Missions in China.

Dear Sir,—I am sending you a few extracts from a letter which I have lately received from my friend, Dr. Mather Hare, of the Canadian Methodist Mission, China, thinking they may be of some interest to some of your readers, especially those who may be taking up medical missionary work in the future. It was my good fortune to meet Dr. Hare when I was in H.M.S. *Esk*, and stationed at Ichang, some 1,400 miles up the Yangtse-Kiang River, and I have reason to be grateful for his valuable advice and assistance on many occasions, which those who have been quite cut off from all chance of other professional assistance can fully appreciate. I may say that Kiating is in the province of Syechuan in the Centre of China, and that it is nearly a three months' journey from Shanghai.

"Your letters of September 19th, 1897, and November 20th have arrived, and I need not say how much pleasure the receipt of them gave me. Thanks to the Inspector-General and his Imperial Custom's Post, your letters all come safely to cheer the heart of 'yours truly,' in this far-away corner of the Flowery Kingdom. When your first letter reached me I was still in the throes of building, with the place all ends and dirt; when the second came to hand the buildings were about done and the place beginning to look civilized; now the grounds are laid out with flowers and flowering shrubs, and they look neat and attractive. The wards I had finished in Ningpo varnish, which makes a solid hard black floor, which can be scalded if necessary without injury. The beds, which are of wood, are finished in white oil varnish, which also can be scalded, a very necessary proviso in this vermin-swarming country. At Chinese New Year I went to Yachio, a city four days nearer Thibet than this place. I was away ten days altogether, coming home all the way by bamboo raft on the Ya river. I got over a dozen mallard coming down, as I had taken my Greener with me in my chair, and it varied the monotony somewhat. Shooting the rapids on one of these rafts will make your eyes stick out if you have had any experience in that line. Coming down one of them, one of the Yamen runners was washed with myself clean off the raft into the rapid. Someone caught him by the gown and dragged him back half drowned, and I caught on to the long steering oar and climbed aboard again. When I was washed off I was at breakfast drinking my coffee, and I held on to my mug all the time. On getting in again the boatmen said 'He loves to drink tea." The trouble with the raft was that they had about half a ton of tribute copper and about twenty bushels of beans on board that they had no business to have, as we had hired an empty raft. When we got below the rapid I hove all the stuff into the

river, not caring whether it was government copper or not. A few days after getting home I opened the dispensary, and have been seeing patients three days a week from 8 a.m. to 4 p.m. Men in the forenoon and women after Tiffin. We have not had many in-patients so far, but they are coming. I can accommodate about thirty-eight or forty, which will give me all I can manage as most of them will be operative cases, many of whom will be in only for a week or so. Our mission has opened in two other cities, one twenty-five miles away and the other seven, and in each I am supposed to dispense medicine, and I have also to see sick in another part of this city, and have opium suicides, instrumental confinements, and all kinds of cases to see in the patients' homes, so that there is more than enough to do.

"I am sending you some photographs which, although not much of a success, will give you an idea of our position. The first one is taken from just outside our back wall; it shows the curve of the city and the hills in the distance, and parallel with them is the river running from Chenau. No. 3 is a continuation of No. 1, and shows the meeting of the two rivers and the beginning of the journey to Shanghai, two thousand miles away. To the left and across the river is U. Y. Si., an island covered with the most beautiful foliage, palms, lianas, etc. No. 2 is a print of the face of the big Buddha, an idol, about a mile from here. The figure is sitting with his hands on his knees. I measured it the other day with a sextant and found it to be 304½ feet high. The face is 60 English feet high. I wish you were here once more with your gun, saddle and camera; it would be hard if we did not have a good time in the mountains. I am invited to a Chinese feast this afternoon, but shall not be able to go as I have an operation in view for resection of the hip for dislocation, child aged 6; it has been out for four months, and I cannot, even under chloroform, reduce it. I have also several eye cases to do, cataract, symblepharon, pterygium, etc., so shall not be able to get away for some little time.—Kiating, China."

The above letter gives, I think, a good idea of the busy life and multifarious duties of a medical missionary, and I trust will not prove too lengthy to be of interest.—

Yours faithfully, PERCIVAL M. MAY,
Royal Naval Barracks, Surgeon, R.N.
Devonport, September 25th, 1898.

Pass List.

University of Durham.

At the Convocation holden on Saturday, September 24th, 1898, the following Degrees were conferred, viz:—

Doctor in Medicine.—G. Gocher, H. M. Meyrick-Jones, T. B. Poole.

Doctor in Medicine (for practitioners of 15 years' standing).—A. Wilson Emms.

Bachelor in Medicine and Surgery.—G. Burton Brown.

The Services.

(*From our Special Correspondent*).

THE ROYAL NAVAL MEDICAL SERVICE.

Gallant Conduct of a Naval Surgeon.

A private account of the fighting at Candia by an officer on board H.M.S. *Astrea*, published in the *Times* of September 19th, says: "The *Hazard's* men behaved magnificently, and I hope they get something out of it. Their doctor should get the V.C. His clothes were shot through in at least a dozen places whilst he was helping the wounded, and he escaped marvellously without a scratch."

The "doctor" here alluded to is, according to the official *Navy List* for April, Surgeon William J. Maillard, H.M.S. *Hazard* (Mediterranean service) appointed in August, 1897.

Surgeon W. J. Maillard, R.N., is an old Guy's man, and it must be very gratifying to all Guy's men past and present to read of his gallant conduct. We hope that he will get the V.C. for his bravery.

ROYAL ARMY MEDICAL CORPS.

For the first time for many years the Secretary of State for War has nominated candidates for the Medical Branch of the Army, on the recommendation of the authorities of the Medical Schools. Two vacancies were thus filled by Guy's men, the gentlemen selected being Mr. Humphry, who was recently captain of the Association football team, and Mr. Parker who played back for the same team. From the general consensus of opinion, these gentlemen are well fitted to hold Her Majesty's commission, both socially and professionally, and we offer them our heartiest congratulations on their selection. It is highly probable that this is the last occasion for some time that the Secretary of State for War will avail himself of this method of procedure, as from all accounts there will be a very full entry of candidates and keen competition for the next exam. in February, 1899, for the R.A.M.C. We strongly urge all Guy's men to now compete for the Royal Army Medical Corps; it is in every way a desirable corps in which to serve, and one in which a very happy career may be well spent, as the field both for professional work and sport of all kind, from the capture of the wily bacillus to elephant shooting, is unlimited.

The 1898 Winter Session at the R.A.M. School, Netley, began on Monday, October 3rd, but the Surgeons on probation were ordered to join on Saturday, October 1st. Messrs. Barrow, Humphry and Packer are the Guy's contingent there. If we were Irish we would wish them each to take all the prizes at the end of the session; at any rate they might try and do so amongst them.

The Case of Captain Beyts.

Captain Beyts, R.A.M.C., really seems to have been rather badly used. We all, from accounts received, and

from statements in numerous contemporaries, confidently expected that this officer would be the first *Guy's* man to win the Victoria Cross, for his gallant conduct in saving the life, and carrying out of action under a heavy fire, Lieutenant North. This noble deed was performed at the action of the Uhlan Pass, in the recent war on the North-west Frontier of India.

As a recognition of this service Sir William Lockhart, who commanded the troops engaged in this campaign, has selected Captain Beyts as surgeon on his staff, when he takes over his appointment of Commander-in-Chief in India.

The following extracts from recent numbers of the *Army and Navy Gazette* speak for themselves, and we may hope ere long that Captain Beyts may be the proud possessor of the soldier's most coveted decoration, the simple little bronze cross, with the words "For Valour" inscribed thereon.

Extracts from the *Army and Navy Gazette.*

1. "As we know, there were many examples of great personal bravery and devotion to duty in the course of the frontier campaign. Surgeon-Captain Beyts is an example. He arrested hæmorrhage under a heavy fire, and Sir William Lockhart has said that no one ever merited the reward of the Victoria Cross more than he did. But Captain Beyts, R.A.M.C. (as he now is) has apparently been overlooked, though why he should suffer this injustice is not easy to understand, considering the truly heroic character of his act."

2. "A correspondent writes:—I was an eye-witness of the heroism of Surgeon-Captain Beyts, Army Medical Staff. If ever a man honestly earned the Victoria Cross this young surgeon did. His gallantry was the admiration of everybody. Can it be that he is to be overlooked in the distribution of honours? If so it will not tend to raise the Victoria Cross in the estimation of those who know the facts."

Captain Beyts' gallant act so far has been entirely unrecognised, beyond the purely personal selection of the Commander-in-Chief elect in India in taking him on his staff as surgeon, and in the words of Gus Elen, "'e 'as my sympafy."

Her Majesty the Queen, as Sovereign-patron and head of the Order, has been graciously pleased to sanction the appointment of Captain G. T. Rawnsley, R.A.M.C., to be an Esquire of the Order of the Hospital of St. John of Jerusalem in England.

Amongst those mentioned in despatches for the recent campaign in the Soudan are Surgeon-General H. S. Muir, principal medical officer in Egypt, and Captain C. S. Spong, R.A.M.C., attached to the Egyptian Army. Rumour states the latter officer will be awarded the Distinguished Service Order. He was also mentioned in despatches for his services at the battle of the Atbara earlier in the year. He will shortly be home again, as his appointment in the Egyptian Army soon expires, he having received an extension thereof till after the conclusion of the present campaign in the Soudan.

Captain W. B. Morley, 2nd West India Regiment—an old Guy's man who left his first love for the sake of soldiering pure and simple—has been recently appointed Garrison Adjutant at Sierra Leone, West Africa.

Guy's Hospital Medical School.

The following Entrance Scholarships and Certificates have been awarded:—

Scholarship for University Students.—H. S. French, Christ Church, Oxford, £50; E. I. Claxton, King's College, Cambridge, Certificate.

Open Science Scholarships.—E. H. B. Milsom, Guy's Hospital Medical School, £150; F. Rogerson, Guy's Hospital Medical School, and N. I. Spriggs, Private Study, equal, £30 each; H. D. Smart, Guy's Hospital Medical School, Certificate; H. S. Brown, Guy's Hospital Medical School, Certificate.

Open Arts' Scholarships.—R. F. MacDonald, Bancroft's School, £100; W. G. Taylor, Aberdeen University, £50; J. W. Walton, Folkestone Grammar School, £30; G. Hamilton, Aske's School, New Cross, Certificate; G. A. Horton, University Tutorial College, Certificate; J. James, St. Bee's School, Certificate.

October 3rd, 1898.

Nursing News.

It is with much regret that we have to announce that Miss Pooley (Sister Job) leaves us on October 11th; Miss Witherington (Sister Cornelius) also leaves us on November 1st, and Miss Barnitt (Sister Patience) on December 1st. In consequence of these vacancies the following appointments have been made:—Sister Annie (Miss Hyland) to be Sister in Job Ward; Nurse Loveday (Sister Louisa) to be Night Sister; Sister Ella (Miss Laurence) to be Sister in Cornelius Ward; Sister Catherine (Miss Rowland Jones) to be Sister in Patience Ward; Miss Beardoe-Grundy to be Sister in the Surgery.

The following is a list of successful candidates in the Surgical Examination:—G. Allen, Archdale, B. Baker, Beard, Blower, Boyd, Bloomfield, Brooker, L. Collins, Copley, Cooper, Crampton, B. Daniels, Davison, Drever, Durant, Ellis, Galway, Gibson, Goodwyn, E. Graham, Green, Grundy, Harbottle, Hembling, Hobbs, Houstoun, Howlett, Hughes, Hyde, Johnstone, Kew, Lamb, Lewis, Lowthin, Lyon, Mackenzie, Mallandaine, McNeill, Morrah, Mousell, Mudge, E. Newton, Norwell, Oldham, Overbury, Palmer, Park, Pegler, Pitman, Porter, Rainbow, Ramsey, Ray, Reed, Rickwood, Scholfield, Smart, Smith, Smythe, Spedding, Studdert, Swadling, A. Taylor, Tompkins, A. Warren, White, Whiteman, Wilson, I. Wood, V. Wood.

Appointments.

MEDICAL SCHOOL APPOINTMENTS.

October, 1898.

The following appointments have been made by the Medical Council and approved by the House Committee:—

Clinical Assistants.—Messrs. K. B. Alexander, A. H. Carter, H. E. C. Fox, G. C. Owsley, F. E. Walker, E. W. S. Rowland.

Gynæcological Assistants.—Messrs. L. E. C. Handson, T. P. Berry (October-November).

Clinical Assistants in the Medical Wards.—Messrs. A. R. Thomas (Dr. Pye-Smith); W. L. Baker (Dr. Taylor); F. D. Turner (Dr. Goodhart); W. R. Cazenove (Dr. Hale White).

Clinical Assistants in the Surgical Wards.—Messrs. R. W. B. Hall (Mr. Howse); H. Durbridge (Mr. Lucas); A. A. Smith (Mr. Davies-Colley); L. Wilkin (Mr. Golding-Bird).

Clinical Assistant in the Medical Out-Patients.—Mr. C. H. Brangwin (Dr. Pitt).

Dressers in the Eye Wards.—Messrs. J. H. Jones, H. C. Sturdy (Mr. Higgens) (November 1st); J. Howell, G. Beley (Mr. Higgens) (December 16th); H. Simson, A. R. McLachlan (Mr. Brailey) (November 1st); W. R. Cazenove, E. A. Longhurst (Mr. Brailey) (December 16th).

Clerks in the Eye Wards.—Messrs. J. H. Jones, E. R. Row, A. E. Clarke, W. H. Edwards, L. Wilkin, C. H. Brangwin (1st half); A. G. Osborn, C. F. Watson, J. F. Robinson, J. G. Taylor, W. M. Thomas, A. A. Smith, F. Curtis, F. R. Featherstone (2nd half).

Dressers in the Throat Department.—Messrs. A. W. Ormond, H. Durbridge, L. H. McGavin, W. H. M. Telling, E. B. Dowsett, F. Shufflebotham.

Clerks in the Throat Department.—Messrs. A. Reid, H. M. Reeve.

Surgeons' Dressers.—Messrs. M. A. Alabone, P. C. P. Ingram, A. E. Cawston, A. H. Davies, H. Braund, H. St. A. Alder (Mr. Howse); E. W. Goble, B. W. Moss, C. A. D. Bryan, T. Morgan, A. W. Talbot, J. N. Dyson (Mr. Davies-Colley); C. T. Hilton, G. S. Simpson, W G. Stewart, D. P. Watson, J. F. Northcott, R. C. Mullins (Mr. Lucas); W. B. Secretan, R. M. Barron, T. J. Wright, C. H. Glenn, E. Stott, A. Densham (Mr. Golding-Bird).

Assistant Surgeons' Dressers.—Messrs. E. Cohen, W. H. Brailey, A. M. Dallas, T. E. Holmes, A. C. Osburn (Mr. Jacobson); A. C. Lewis, H. V. Bagshawe, E. A. Miller, T. P. Thomas (Mr. Symonds); H. B. Carr, P. D. Hunter, H. A. Higgens, E. H. Felton (Mr. Lane); J. Atkins, A. Fraser, J. C. J. Da Silva, G. Lewin, J. S. S. Perkins (Mr. Dunn).

Medical Ward Clerks.—Messrs. H. B. Foster, D. G. Greenfield, T. R. Beale-Browne, F. G. Cross, W. P. Ker, H. McD. Parrott, R. Tilbury, J. M. Brydone, E. J. F. Hardenberg, J. Alison Glover, E. G. Andrew, A. D. E. Kennard, A. Moon, J. D. Bridger, W. Johnson, W. H. Loosely, E. P. Mitchell, H. E. Morris, B. Muir, A. C. Ransford, J. A. Butler, P. W. L. Camps, D. Forsyth, P. S. Mandy, A. Pearson, L. Pern, H. G. Rashleigh, E. F. Reeve, F. G. Gibson, K. W. Goadby, R. S. Roper, F. D. Welch, G. T. Willan, H. Bentley, J. A. Wood, T. B. Fawley.

Surgical Ward Clerks.—Messrs. K. V. Trubshaw, N. F. Ticehurst, J. E. Collins, S. Hodgson, H. K. Lacey, T. A. Matthews, S. J. Ormond, F. A. Beattie, J. A. B. Hammond, L. Hirsch, R. Jimenez, H. D. Kempthorne, R. P. Marshall, D. L. Morgan, P. J. Nash, F. M. M. Ommanney S. S. H. Shannon, F. W. Smith, S. Wacher, V. M. Wallis, F. E. Welchman, D. W. Smith, G. S. Graham-Smith, E. G. Wales, F. W. Sime, E. C. Bevers, T. H. B. Dobson, G. Clarke.

Assistant Physicians' Clerks.—Messrs. E. M. Judge, F. A. Segreda, E. Shelton-Jones (Dr. Pitt); D. G. Greenfield, T. T. Kelly, R. D. Attwood, J. L. Whatley (Dr. Shaw); F. J. Felix Jones, J. E. L. Bates, W. P. Ker (Dr. Washbourn).

Clerks in the Skin Department.—Messrs. A. Reid, H. M. Reeve, H. A. Gaitskell.

Post-mortem Clerks.—Messrs. E. E. Parrett, J. H. Roberts, S. A. Ruzzak (October-November; H. A. Gaitskill, C. B. Thomson, A. W. Penrose (November-December); J. G. Taylor, A. Reid, G. N. Meachen (December-January).

Obstetric Ward Clerk.—Mr. G. Shorland.

Obstetric Out-Patients Clerks.—Messrs. J. G. Taylor, L. Wilkin, A. R. McLachlan, F. Curtis, E. M. Judge (1st half); H. M. Hardy, W. M. Thomas, J. E. L. Bates, E. Shelton-Jones (2nd half).

Aural Surgeon's Dressers.—Messrs. A. W. Ormond, A. A. Miller, E. R. Row, T. W. S. Browne (November-December).

Dental Surgeons' Dressers.—Messrs. J. Harris (October-November); J. E. Powell (November-December); T. W. S. Browne (December-January).

Assistant Surgeons' Clerks.—Messrs. F. Curtis, G. G. Davidson (Mr. Jacobson); M. J. Rees, M. D. Wood (Mr. Symonds); H. S. French, E. I. Claxton (Mr. Lane); L. E. Stamm, R. D. Attwood, C. R. Howard (Mr. Dunn).

Clerk in the Electrical Department.—F. O. Stoehr (October-November).

DECORATION.

From the *London Gazette*, of 30th September, 1898.—The Queen has been graciously pleased to nominate and appoint Alfred Downing Fripp, Esq., to be a member of the Fourth Class of the Royal Victorian Order in recognition of his services in connection with the recent accident met with by His Royal Highness the Prince of Wales.

CIVIL.

Eastment, J. W., L.R.C.P., Lond., M.R.C.S., has been appointed Medical Officer for the Fourth Division of the Saffron Walden Union.

Godson, John H., M.B., has been re-appointed Medical Officer of Health to the Cheadle and Gatley Urban District Council.

Rowlands, Hugh P., M.D. Durh., has been re-appointed Medical Officer for the Llanegryn District of the Dolgelly Union.

NAVAL AND MILITARY.

Staff-Surgeon W. Bett, R.N., has been appointed to the *Centurion* for service with the marine force at Wei-Hai-Wei.

Captain G. T. Rawnsley, R.A.M.C., has been appointed an Esquire of the Order of St. John of Jerusalem in England.

Captain C. M. Fleury, R.A.M.C., has been transferred from Rawal Pindi, Punjab, to Warchi Sind.

Mr. J. A. Fox is reappointed Surgeon-Lieutenant to the 1st Cornwall Artillery (Western Division Royal Artillery).

Obituary.

George J. Lewis.

Born 1875. Died 1898.

We deeply regret to chronicle the sudden and shocking death of G. J. Lewis, which occurred on Friday, September 23rd.

He had been up at the Hospital only the day before, in the best of health and spirits, and the news of his terrible accident cast a gloom over the whole place.

The cause of his death was a fractured skull, due to a fall from a rather nasty-tempered horse he was taking to Coventry for the commencement of the hunting season. He had just mounted it at the station without a saddle, when the animal reared and threw him, kicking him severely on the side of the head. He was taken to the local hospital and his parents sent for, but he died the same night without recovering consciousness.

George Lewis lived at Brighton, where he was universally known and liked. He came up to Guy's in 1896, and at once became a well-known figure owing to his remarkably fine voice, and he sang in the Disguysed Minstrels in 1897 and 1898. He was exceedingly popular among his fellow men, and was second to none in honesty or integrity of life. His sudden and lamentable death has made a blank which is keenly felt by all at Guy's. He was buried on Tuesday, September 27th, at Coventry.

We regret to announce the death of John Thomas Nicholson Lipscomb, J.P., of St. Albans, on September 21st, in his 80th year. He received his medical education at Guy's Hospital, and was admitted a Member of the Royal College of Surgeons of England and a Licenciate of the Society of Apothecaries in 1841. He took the M.D. degree at St. Andrews in 1844, and was elected a Fellow of the Royal College of Surgeons in 1856. Dr. Lipscomb was Consulting Physician to St. Albans Hospital, Physician to the Marlborough Almshouses, Surgeon to H.M. Prison at St. Albans, Medical Visitor of the Lunatic Asylum at Harpenden, and a Certifying Factory Surgeon. He was a Fellow of the Medical Society of London, and a Member of the British Medical and St. Andrews' Graduates Associations. — *British Medical Journal.*

Reviews.

Asepsis and Antisepsis in Abdominal Surgery and Gynæcology. By H. Macnaughton-Jones. (Bailliere, Tindall & Cox.) 8vo., pp. 64, 3s. net.

We confess that on first reading the title of this volume we experienced a feeling which has been described by a former student of this hospital:—

"Then felt like some watcher of the skies
"When a new planet swims into his ken."

Accustomed as the mind of the reviewer is to new sensations, on this occasion it was filled with wonderment and surprise. Nor is the cause far to seek. It seemed incredible that in London in the year 1898 any one should be found willing to waste his time in writing on asepsis for the especial benefit of gynæcologists—who, as everybody knows, are in the front rank among the asepticians of the world. Here, in Guy's, for instance, is not Queen Victoria ward about to be opened? Have not the gynæcologists been repeatedly observed (by impartial witnesses) dipping their hands in Perchloride of Mercury (1 in 2,000) for at least fifteen seconds before proceeding to an abdominal section? Have not those members of the nursing staff who assist at gynæcological operations been instructed that instruments, sutures, etc., which have been dropped on the floor, or into the sawdust-tray, should be momentarily immersed in lysol before being handed to the operator? We emphatically ask, what more is necessary?

The author, indeed, seems to a certain extent to feel the anomalous nature of his position, and in his introduction explains himself as follows:—

"It is, therefore, rather with a view to insisting on the need for caution *outside* the hospital theatre and ward, that I write this short summary of the methods that I myself pursue, and that can be carried out in any medical home or private house."

Possibly in this class of practice there may be room for improvement in antiseptic methods; in the mean time, the curious may find it interesting (from a purely philosophical point of view) to compare the methods of other gynæcologists both in Europe and America with those in vogue here

The introductory chapter considers the general theory of asepsis, and briefly lays down certain propositions to which, we imagine, all operators will readily give their consent. For instance, quoting from Doyen, Dr. Macnaughton-Jones says: "Many surgeons commit the grave error of believing themselves *a priori* aseptic, and

account for their failures by causes other than the direct infection of the wound. This pretension to infallibility in antisepsis is as ridiculous as it is dangerous."

He goes on to justify the detailed care in antisepticizing the skin, instruments, etc., with the minutiæ of which we hope every student at Guy's is familiar.

Throughout the work, in comparing the methods of various surgeons, what strikes us most is the universal care which is expended in cleaning the operator's hands. Howard Kelly, indeed, insists that the operation of scrubbing with soap and a sterilized brush should last for ten minutes, not guessed, but accurately timed by the clock. In other matters much variety of procedure obtains: in the method of sterilizing sutures, for instance, or in the material used for sponges, individual tact comes largely into play; but on the importance of *prolonged* scrubbing of the hands there seems to be but one opinion.

The book is illustrated by a number of photogravures and figures, concerning which the only criticisms that suggest themselves are: Why in plate VI. does the surgeon, ready for his operation, rest his aseptic hands on two presumably dirty pieces of furniture, and what gynæcological operation is the patient (♂) in plate XI. about to undergo?

In conclusion, the only fault we can find with the book is, that the author has not apparently taken the trouble to examine the aseptic methods prevalent among the gynæcologists at this hospital, a record of which would vastly add to the usefulness of the work.

Dwelling Houses: their Sanitary Construction and Arrangements. By W. H. Corfield, M.D., pp. 122, 2s. 6d.

This book is a reprint of a series of lectures delivered before the Society of Arts, and describes some of the ideals which should be striven after in building a house. It is a readable book, and one which architects and builders might well read, mark, learn and inwardly digest. The preface hopes that the book may be useful as a short practical exposition of the means by which dwelling houses may be *made* wholesome. Unfortunately, most of us have to live where we can, and our landlords decline to spend money on improvements. If Professor Corfield would add a few short notes as to the best methods of inducing the landlords to follow the advice set forth in his book we should be grateful. The one great blot in the book is the description of filters. The author actually recommends these abominations which are compounded of sponge and charcoal, and dismisses almost in parenthesis the Pasteur-Chamberland and Berkefeld filters. We hope that he will remedy this in his next edition.

Synopsis of the British Pharmacopœia. Compiled by H. Wippell Gadd. (London: Baillière, Tindall & Cox.) 3rd edition.

This concise and handy little book is evidently meeting with the success it deserves. As we have noticed it at some length before we have only to welcome the third edition.

A Manual of the Practice of Medicine. By Frederick Taylor, M.D., F.R.C.P. Fifth Edition. (J. and A. Churchill.)

A new edition of Dr. Taylor's work appears almost with the same regularity as the announcement of the Guy's Biennial Dinner. Indeed, if we may be allowed the paradox we would add "only rather more so," as the five editions have appeared in the space of eight years instead of ten. Those of us who owe most of our systematic knowledge of medicine (such as it may be) to the Third Edition, will be surprised at the immense number of changes that attest the unfailing care which the author has expended on the successive editions of his work; and even junior men who know the Fourth Edition will find that the differences in the text surpass those superficial alterations in the size and print which distinguish the present volume from its predecessors to the eye of the most casual observer. With regard to these outward improvements little need be said; for we imagine that were the volume printed in bad type with no margins at all, it would none the less be universally read as the best text-book of medicine extant; still the wider margins and larger print are an undoubted advantage, which will not fail to be appreciated by all who live in this astigmatic age.

To pass on to the text, it may at once be said that the additional matter inserted has not by any means proportionately increased the size of the work—everywhere there are evidences of careful revision and compression. But a few of the alterations have been mentioned in the preface, and some of these, dealing as they do with less frequently seen conditions, are more important as evidence of the way in which the edition has been brought thoroughly up to date than as actual additions to the stock of useful knowledge which it contains.

In the classification of diseases several changes have been made. A separate section, containing Diseases of Muscles, has been inserted, thus rendering the position of Thomsen's Disease, Progressive Muscular Atrophy, etc., less illogical. Hæmoglobinuria has been placed under the Diseases of the Blood, and Filariasis under Diseases of the Lymphatic System.

In the Preliminary remarks on Fevers important alterations have been made. The classification of Bacteria, which appeared in the Fourth Edition, has very wisely been omitted, and the purely morphological one now in general use alone remains. Kanthack's modification of Koch's conditions of pathogenesis in bacteria is inserted, and the section on immunity has been much simplified. In the various diseases grouped under the heading "Infections," numerous changes and additions occur. We notice, for instance, that in the ætiology of Diphtheria a more decided pronouncement against the miasmatic nature of the disease has been given, and in Enterica less is said about the possibility of infection otherwise than from a previous case. The Introduction to the Nervous System has been re-written and two new plates of the Sensory Distribution of the Spinal Nerve-

roots have been added. We notice, however, that Dr. Taylor, with characteristic caution, merely describes them as representations of "opinions which have been expressed." The subject of Bronchiectasis is much more fully dealt with than in former editions, and the condition described with far greater clearness. Cirrhosis of the Liver is treated in a more decided manner than formerly, and the words, "Atrophic" and "Hypertrophic" practically abandoned for purposes of classification. This is only what was to be expected from Dr. Taylor's papers in the Guy's Hospital Reports. The alcoholic ætiology is also more fully dealt with. The Theories of Jaundice have been compressed and simplified.

With regard to blood diseases much new matter has been added. The histological classification of the blood corpuscles has been brought up to date, and the practical usefulness of the section much enhanced by the description of the Thoma Zeiss hæmocytometer in addition to that of Gowers, which in this hospital, at least, is no longer used.

We see that "fat necrosis" is mentioned for the first time in connection with acute hæmorrhagic pancreatitis.

These alterations and additions are merely taken at random from among an immense number which characterize this edition, and if they cannot be said to make a new edition into a new book it is merely because the many excellences of clearness and brevity of style, accuracy of description and completeness of detail are no new things in connection with this most valuable work, and are only more marked in each successive issue. If anyone ever *should* hesitate as to what work on medicine he should read, we can only emphatically advise him to do so no longer.

From the Gazette's Special Pathologist.

Diphtheria specimens are to be labelled *Immediate*.
Postal Orders to be made payable to Mr. C. H. Wells.

Seaman's Infirmary, Ramsgate.—This growth from the abdominal wall is a sarcoma, composed chiefly of round and oval cells.

L. S. M., St. John's Hill.—Tubercle bacilli are present in the sputum in fairly large numbers.

T. R. A., Sherborne.—Tubercle bacilli are present in moderately large numbers.

R. C., Windlesham.—No tubercle bacilli could be found in the sputum. If the one negative result taken in conjunction with the symptoms does not seem satisfactory to you, we would suggest that you send up for examination the sputum first coughed up after waking in the morning.

T. B. L., Teddington.—No tubercle bacilli could be found in the sputum.

H. C. L. M., Bognor.—The growth on blood-serum after incubation consists of an iodium, staphylococci and a few streptococci. No Klebs-Löffler bacilli were found.

PATHOLOGIST.

Case for Diagnosis on page 441.

Result.—Patient was admitted under care of Mr. Golding-Bird in 16 Lazarus ward. He died from internal hæmorrhages from sarcomatous nodules into the brain, right kidney, and lungs. At the autopsy it was found there were considerable hæmorrhages into mesentery, meso-colon, posterior abdominal walls, and left pleural cavity.

Lungs.—Both lungs were infiltrated with numerous hæmorrhagic growths. In the lower lobe of left lung there was a large growth, into which hæmorrhage had occurred. The organs were much engorged and œdematous; the masses of growth projected above the surface. The bronchial glands were healthy.

Heart.—Blood-stained fluid in pericardium.

Kidneys.—*Left*, normal. *Right*—There was extensive hæmorrhage round it, forming a tumour 6½ inches by 3¾ inches by 2½ inches thick. The hæmorrhage occurred through bursting of a nodule in cortex of kidney, with consequent bleeding.

Bladder.—Normal.

External Genital Organs.—The body of the right epididymis was infiltrated with growth, and measured 2½ by 2 inches, into which extensive hæmorrhage had taken place. There were also nodules of growth in the body of the testis.

Brain.—Five nodules of growth were found—

1st, in left cuneate lobe.
2nd, in ascending frontal convolution.
3rd, in left superior frontal convolution.
4th, in right ascending frontal convolution.
5th, in right frontal lobe.

Birth.

APTHORPE.—On September 30th, at Grove Lodge, Bromley, Kent, the wife of S. Ralph Apthorpe, L.D.S., of a daughter.

Marriage.

HUNTLEY—ROPER.—On September 29th, at the Church of the Ascension, Blackheath, by the Right Rev. the Lord Bishop of Southwark, assisted by the Rev. S. Bache Harris, Vicar of St. James's, Kennington, and the Rev. Alfred L. Lambert, the Vicar, Edgar Huntley, M.B., B.S. Lond., fifth son of G. T. Huntley, Esq., of Tulse Hill, to Eleanor Alice Margaret (Daisy), eldest daughter of Dr. Roper, of Colby, Lewisham Hill.

Death.

LEWIS.—On September 23rd, at Coventry, from the effects of a fall from his horse, George Jepson Lewis, younger son of John Lewis, of 54, Cromwell Road, Hove, in his 24th year.

Ed.—H. L. E.

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Calendar of Coming Events.

October.

Sat. 22.—Messrs. Howse and Jacobson's take-in; Drs., A. W. Penrose and L. C Martin; Cl., G. C. Owsley.
1.15 p.m., Clinical lecture by Dr. Pye-Smith.
G.H.R.F.C., I., Old Leysians, away.
II., Marlboro' Nomads, home.
G.H.A.F.C., II., Christ College, away.

Wed. 26.—1.30 p.m., Clinical lecture by Mr. Davies-Colley.
Messrs. Davies-Colley and Symonds' take-in; Drs., C. E. Hicks and B. W. Moss; Cl., E. W. S. Rowland.
G.H.A.F.C., II., R.M.A., away.

Thur. 27.—G.H.M.P.U., Address by A. H. Burton, B.A., M.D.

Sat. 29.—1.15 p.m., Clinical lecture by Dr. Pye-Smith.
G.H.R.F.C., I., Cardiff, away.
II., Old Merchant Taylors, away.
G.H.A.F.C., I., 1st Round Surrey Cup.
II., Furzedown Park, home.
Physical Society, "Plague Work," H. W. Bruce.

Mon. 31.—Final M.B. Lond. Exam. begins.

November.

Wed. 2.—1.30 p.m., Clinical lecture by Mr. Davies-Colley.
Messrs. Lucas and Lane's take-in
G.H.R.F.C., I., Cambridge, away.
G.H.A.F.C., II., City of London School, home.

Thur. 3.—G.H.M.P.U., Address by Rev. E. Poole Connor.

Sat. 5.—1.15 p.m., Clinical lecture by Dr. Pye-Smith
G.H.R.F.C. I., Rosslyn Park, home.
II., ditto away.
G.H.A.F.C., I., St. Leonards, away.

Guy's Hospital Gazette,

OCTOBER 22, 1898.

Cerebral Disease.

CLINICAL LECTURE BY Dr. PYE-SMITH.

8th October, 1898.

Gentlemen,—To-day begins our clinical session of this winter, and I will bring before you an interesting case of cerebral disease lately in the hospital, which affords, by the death of the patient, an opportunity of verifying our diagnosis. I will preface what I have to say about the case by a word on the methods of diagnosis generally.

In the clinical lectures diagnosis and treatment are our subjects, and we leave questions of pathology, of the causation of diseases, and of prognosis to the systematic lectures.

Now, in the art of diagnosis, that is to say, the thorough understanding of all that can be learnt about a case of illness, what are our methods, and which of those methods are the most important? I suppose you will agree with me that we ought never to be satisfied with a diagnosis until we know not only the organ at fault, that is to say, *where* the disease is, but also the nature of the disease, that is to say, *what* it is—until we know the time it has existed, until we know what started it, what aggravated it, what checked it, and until we can form a judgment as to its subsequent progress. Then only can we be said to have made a thorough diagnosis. Such a diagnosis can be made in the case of scabies, where we know everything that can be known about the disease. The same is true of valvular disease of the heart, of pneumonia, of most of the exanthems, and of lead colic.

That, then, is our aim. What are our methods? I need only remind you of them.

First there is observation—studying the patient as we see him before us, and this study must, as you know, be prolonged and careful. We cannot tell what is the matter at a glance; you will find as you get experience in practice that as soon as the patient comes into your room you form an involuntary guess as to what is wrong, and very often you will be right in your guess. Such cases are advanced phthisis, acne, tabes, and gin-drinkers' cirrhosis of the liver. But when you come to examine carefully you will sometimes find that appearances are deceitful. Therefore, always reserve your diagnosis; never pretend to decide at once about any case that comes before you, but reserve your diagnosis until you have made a thorough examination. Sometimes, it is true, a patient is so ill that a complete examination cannot be made; you must at once relieve his pain or meet imminent danger. I would still say, make your diagnosis

depend on your observation, but in that case let your observation be short; you must be content not to examine the whole chest, but ascertain the condition of the bases of the lungs behind and of their apices in front, and make out whether there is a murmur at the heart. Be content with passing your hand over the abdomen to feel whether there is ascites or an enlarged liver, or a pregnant uterus or other tumour. Note the characters of the pulse and breathing, and the heat or moisture of the skin; and as soon as possible get the urine to examine. You may then make a diagnosis accurate enough to treat your patient rationally, honestly, and with effect.

In all difficult cases, even after the first observation, write down your opinion, but do not say anything about it until you see the patient again. Often you will find that a case from which you went away puzzled, and which, perhaps, kept you awake at night, becomes clear when you examine it next morning in the daylight. On the second visit symptoms which were prominent and contradictory have disappeared. Other symptoms which you did not notice have come out clearly, and what seemed at first a very difficult case now becomes plain.

Again, suppose you have a case in which you have made your diagnosis, and have treated the patient in the way which you know is likely to do him good; but he does not improve, and gets rather worse than better. Then question your diagnosis, go back and begin the case again as if you had never seen the patient before. You will often find something which you had not noticed; you may find a new symptom, or one which you had previously overlooked.

What do we learn from observation? You know the distinction often made between symptoms and physical signs, but it is not one that holds. Every physical sign is a symptom, and many so-called symptoms are really physical signs. Again, if you examine the rectum and find a cancerous mass, will you call it a symptom or a sign, or will you not rather say that you have felt the disease itself, and do not want either sign or symptom? So, if you use the laryngoscope and find a polypus in the larynx, that is neither sign nor symptom; it is the disease. The same holds good with regard to many affections of the skin. It is not worth your while to distinguish between signs and symptoms, but there are two distinctions which are worth while making: one is the distinction between what (if I may use a philosophical term) is subjective and what is objective. The subjective symptoms are those which depend upon the patient's own statement. A man says he suffers excruciating pain in his temple; another says that he feels so weak that he cannot move. Those are statements the truth of which you can check to some extent. If a man suffers from excruciating pain he cannot eat as usual; and usually a sharp pain will make the pupils dilate. Moreover, a man suffering severe pain cannot be distracted by conversation, but will wear an aspect of suffering. Still, in many cases you must depend almost entirely upon what the patient tells you. These never form so sure a foundation for diagnosis as objective symptoms, that is to say those which depend on your own sensations, which you can see or feel or hear, including those which you make out with the aid of the stethoscope, microscope, ophthalmoscope, laryngoscope, or thermometer.

Another real distinction is between the physical signs, which tell you only the physical state of an organ, the signs which tell you its physiological state and those which tell you its pathological state. Many mistakes will be avoided if you keep clearly in mind that when you percuss a chest and find dulness, all that tells you is the physical state of the lung. If the proper pulmonary percussion note is not damped by dropsy, or fat, or thickened pleura, the dull note means solid lung. When a lung is resonant it contains air, and if you had that lung in your hand and put it into water it would float. But if you find dulness, that part of the lung may be collapsed or filled up with exudation or new growth, but if you had it in your hand it would sink in water. Always connect resonance on percussion with contained air and floating in water, and associate dulness on percussion with absence of air and sinking in water. But remember that no dulness can tell you whether a patient has pneumonia; the dulness tells you that he has a solid lung, but the cause of the solid lung you must get at from other considerations. So that physical signs are the signs of physical conditions. If you feel a large liver or a large spleen, then the liver or spleen is large, but what makes it large you cannot tell by feeling.

Secondly, some symptoms and signs tell you of physiological conditions. The thermometer tells you that a patient is in a state we call fever, but it does not tell you the cause of the fever; the signs are just the same whether it is caused by inflammation or by direct neural disturbance; it tells you the physiological fact that the mean bodily temperature is increased.

The third kind of symptom is the pathological. The signs, however, are comparatively few. You learn from certain bacilli in the sputum that there is tuberculosis; as you learn from fatty casts in the urine that there is chronic tubal nephritis. So that we have three kinds of signs: (*a*) the physical signs, (*b*) the physiological signs, and (*c*) the pathological signs.

(2) So much for observation as a means of diagnosis. Next comes the *History*. Now, that is comparatively unimportant. Your natural tendency is to lay too much weight upon history. No doubt the thorough and complete account that one gets if one meets a practitioner who has had the patient under his eye from the time he brought him into the world and has known all his ailments, is of the greatest service, and that alone may be enough to base the diagnosis on. But such cases only occur occasionally in private practice, and never with hospital patients. People who come to you without your knowing anything about them will often give a history which not only does not help but misleads you. Again and again, without intention or wish to deceive, the history which you get from hospital patients is so confused, so inaccurate, so involved, lapses of memory are so frequent, and they so mix up what they know with what their friends have told them and what the doctor has told them and what they suppose, that it needs the skill of an Old Bailey lawyer to get at the facts of the case. On the whole, you will economise time by examining the patient first and listening to his narrative afterwards.

Again, do not forget that probability is a treacherous foundation for diagnosis. In the case I am going to speak of, you will see that the probability was one thing and the fact another. Do not jump at the conclusion that because a man is a plumber and has pain in the belly he has lead colic; he may have strangulated hernia; or that because a man has syphilis and also has paralysis, that the paralysis is due to a gumma. Syphilis does not protect from cerebral hæmorrhage any more than from scabies, or psoriasis, or scarlet fever.

(3) There is a third method of diagnosis beside those I have mentioned, and it is one which you are familiar with, though perhaps you have not looked at it in this light, and that is, knowledge of pathology. There is an old saying, and a very true one, "the road to an accurate diagnosis is through the deadhouse." The meaning is that unless you have a thorough knowledge of the things which are possible or probable in the way of disease, you will never be able to make out obscure cases. You must know that the liver is liable to certain diseases, and none other; that the brain is liable to certain diseases, and none other; and so on. Otherwise, if every organ of the body had every disease of which the body is capable, we should never come to a diagnosis, and the patient would either have recovered or died before we found out what was the matter with him. But we know that if we ascertain that the patient has, say, a large liver, there are only a few causes of this enlargement, half a dozen at the most, which you have to think of. So, if you make up your mind that a patient has tumour of the brain, you know that most of the tumours which occur in the body generally are not found in the brain, and these you need not consider. Again, some of those which may occur in the brain are very rare; you meet with them in museums, but they are only interesting as curiosities. I have seen cysticercus of the brain twice only in my lifetime. Just think of the difference in frequency between a cysticercus and a tuberculous tumour of the brain. Probably you have all seen a tuberculous tumour of the brain, one of the commonest cerebral tumours, and by far the commonest in young people. But cysticercus is a curiosity, and if I were to see a case of cysticercus of the brain to-morrow I should not diagnose it, because its effects are like those of any other tumour. When we find such and such possible lesions of an organ we decide them by pathological probability. If you find a lump in the liver, it is far more likely to be carcinoma than anything else in the world. If you find a fluctuating tumour of the liver, it is almost certain to be hydatid or an abscess.

Thus, your knowledge of pathology will often guide you in diagnosis on this principle; that things which are very rare may be dismissed, and that those which are most common are most likely.

Now we come to the particular case that I am going to speak to you about. It is that of a girl aged 16, previously healthy, whose family history is very properly set out here, but neither it nor the previous history of the patient having any bearing on the case. She was apparently a healthy girl until the 24th of last month, and she died on the 5th of this, that is to say, eleven days after her illness began. On September 24th, when apparently well, she went to the funeral of a relative, and, as the mother said afterwards, "she seemed very much upset." That is a history which we disregard. We do not know any disease which is caused by attending a funeral; we do not even know of

any disease which is caused by grief. You know that the pages of history contain numerous examples of people having died of a broken heart; but if so it was not from grief. The heart breaks either from injury of the right ventricle or from disease of the walls of the left. George II. died of a broken heart, but it was not from grief. In this girl's case the funeral was a mere accident. People always want to find a cause for disease. No doubt the true cause is a most important thing to find, but in order to find it you must beware of accepting such explanations as overwork, grief, "worry," exposure to the weather, and so on. Even such real causes of disease as alcohol must be proved, not assumed, for although alcohol causes much mischief its effects are limited and definite. It is absurd to hold alcohol or syphilis or malaria responsible for every disease that may follow it.

This girl came home from the funeral and had a fit. The fit consisted in convulsions of which we have no exact account. After the fit she complained of severe headache, and was brought to the hospital. She could just walk into the ward, though very weak, and she could speak, though somewhat indistinctly. She had not aphasia; the indistinct speech was due to partial paralysis of the left side of her face, and she had also partial paralysis of the left arm and leg, that is to say, left hemiplegia affecting the face on the same side as the limbs. The hemiplegia gradually disappeared, or very nearly disappeared, and her speech became as usual. She seemed to be getting better; she could feed herself, and for three or four days was convalescent. Then, on the 30th of September, a week after she was admitted, she had another fit early in the morning. This was watched more carefully, as it was seen by skilled observers. It began with vomiting, then both her arms became stiff and rigid, and she again lost consciousness, though not completely. Next, the arm and leg began to jerk, her tongue was bitten, there was nystagmus, and the pupils were noticed to be equal and dilated. This fit lasted five hours. It was epileptiform, but most of you will already have seen that it was not an ordinary epileptic convulsion. In the first place, it lasted too long. Sometimes an epileptic fit only lasts five minutes, sometimes not more than five seconds, and never more than a quarter of an hour. Therefore, a fit of five hours cannot be a manifestation of true epilepsy. Then, again, she did not quite lose consciousness. An epileptic fit, however slight it may be, even *petit mal* which lasts a fraction of a minute, is always accompanied by loss of consciousness. Again, there was not only jerking of the limbs, that is, clonic convulsion, but also rigidity, that is, tonic contraction; and afterwards there was weakness in the affected limbs. This points not to ordinary epilepsy, but to what is sometimes called (after Dr. Hughlings Jackson) Jacksonian epilepsy—not a mere functional disturbance, but due to some organic change in the brain. Eclampsia is a convenient word to use for a convulsive fit, and I think it is well we should only speak of true "epilepsy" when the fits are not secondary. This was a fit which pointed to organic disease of the brain. The hemiplegia again to some extent cleared up, as it did after the first fit, but for three days there was incontinence of urine. Now, that is a very important sign. Scarcely ever will you find adults, and I think you will never find women, who fail to hold their water at night except against their will. Hysterical girls retain their urine; they do not pass it in bed; so that incontinence of urine is always a serious symptom, it is not due to a functional disturbance.

The next sympton was that the temperature went up, and it rose very suddenly and rapidly, as this chart shows, namely to 104° and subsequently to 105·8°; it was a very high temperature and very irregular. This symptom bore one or two interpretations, which were both discussed at the bedside. A common cause of high temperature is inflammation, and, on the whole, I thought it was probably the case here, and that she had acute meningitis. But we must not forget that lesion of certain parts of the brain will cause a rise of temperature quite independently of inflammation or sepsis. The fact has been observed for many years, but of late much more attention has been paid to it. If you look in the forty-second volume of our 'Reports' about twelve years ago, you will see an interesting paper by Dr. Hale White, in which he collects a considerable number of cases in our wards, and refers to others observed abroad. I remember a patient of my own, a boy of eleven, who died from tumour of the brain without meningitis, after high temperature during life. The corpus striatum contains thermotaxic centres, but there are probably others.

Our patient became steadily worse from this time. There had been some difficulty in examining the fundus of the eye because of the nystagmus and restless movements of the head, but obvious and severe optic neuritis was clearly seen in one eye. In spite of cold sponging the temperature went up again and again, she

became deeply comatose, and the respirations rose to 80 per minute, the pulse became imperceptible, and she died early on the morning of the 5th inst.

That is the case; now for the diagnosis. It is a good plan to start from some prominent objective symptom. If you feel a large liver, think of the causes of enlargement of that organ. If you hear a cardiac murmur think of the various causes of disease of the heart. If you see hæmoptysis, remember the causes of blood spitting. This was obviously a nervous case. The paralysis, the convulsions, and the optic neuritis, the temperature and the final coma, all pointed to cerebral disease.

Always made a diagnosis of some sort, never say you cannot make anything of a case; even if you only say dropsy, or something wrong with the liver, it is better than saying nothing.

When you have to deal with a nervous case, think in the first place of the possibility of shamming. It is a rare occurrence, but such cases do happen, and if it occurs, and you do not happen to think of it, you may not only fail to cure your patient, but you may damage your own reputation. If you are a surgeon to a jail or a reformatory, you must not be surprised to have cases of feigned disease or injury. If you are the medical officer of a public school you have to remember the possibility of shamming; and one is ashamed to say, that if you enter the services you must not shut your eyes to the possibility of a soldier or a sailor pretending to be ill when he is well, and you are bound to recognise such cases. It is not difficult, by the exercise of your common sense and experience, to find out malingerers if you only think of them. The chance of your being deceived is that you may not always think of the possibility of shamming, just as you may forget in cases of gastritis to think of poison, or in cases of abdominal tumour to think of pregnancy.

Next comes hysteria, which is a very different thing. You may meet with a shamming woman, but the majority of shammers are men and boys. You may meet with hysteria in the male, and among boys it is not uncommon. At the same time the enormous majority of hysterical patients are women. It is true that hysterical women may malinger, but most of them are anxious to get well; their ailment is a defect of will, not of intention, and it would be grossly unfair if you were to accuse a hysterical girl of wilfully pretending to be ill. That is not the case, and you help them all the more if, while recognising that there is nothing dangerous the matter, you recognise also that they are suffering from a distressing form of nervous malady which is not entirely under their control.

Next comes the question, is the disorder functional, such as epilepsy, of which I have just spoken? By functional we mean that if you made a post-mortem examination on a patient the subject of functional disease immediately after death, you would find nothing wrong, either with the naked eye, with the microscope, or with all the methods of hardening and staining that we have now at hand; neither would a bacteriological examination reveal anything amiss; you would find absolutely nothing to distinguish it from the brain or nervous system of a healthy man.

There is still another form of nervous disease you must not forget, the toxic neuroses. In such cases you find no anatomical change post mortem, but you can find a chemical change; and we know that they depend upon poisoning, either with a metal like lead, or with a plant like belladonna, or with an animal poison like a toxin or an albumose.

When, lastly, you come to structural diseases, think first of traumatic affections. If a man is brought comatose into the surgery, first think of fractured skull, next of drink, and thirdly of opium. But here, again, do not forget the possibility of shamming or of hysteria. It is only when you can put all these things on one side, that you can decide a case to be one of organic disease. In the case I am speaking of we had no difficulty in arriving at a diagnosis of structural disease. The patient was a girl, but was not one of those who pretend. She had no symptoms of hysteria. Hemiplegia is never toxic, and in her it was of the ordinary kind, partial and chiefly motor, not complete and anæsthetic as it is in functional cases. Optic neuritis cannot be feigned, and the fits from which she suffered were neither hysterical nor idiopathic epilepsy.

The diagnosis so far was manifest, and it was only when one turned to the inevitably fatal prognosis that one felt a faint hope that the case might, after all, be one of those strange instances of recovery from apparently hopeless nervous disease that we occasionally meet in women.

There is a power in the female organism which produces symptoms of organic disease, and yet admits in rare cases of recovery, unforeseen and inexplicable.

When we had decided on the presence of structural disease in the nervous system, we had next to determine its seat and its nature. Consider the muscles as end-organs of the motor nerves, for paralysis may begin in the muscles,

like the pseudo-hypertrophic paralysis of Duchenne. Do not separate such myopathic palsy from other atrophic paralyses, for clinically they are closely allied. Next look to the peripheral nerves, the seat of most toxic paralyses —diphtherial, alcoholic and plumbic. In the third place comes the cord, with its prolongation into the skull, *medulla spinalis oblongata*, or, as we now call it, the bulb; and lastly, the brain. In the present case the symptoms were cerebral. You are all aware that hemiplegia points to a cerebral lesion, while paraplegia means disease of the cord. To localize our diagnosis further, was the disease in the meninges or in the cortex, or in the internal capsule? Was it in the frontal or occipital region, in the cerebellum, or in the pons? Clearly, it was in the motor tract of the right side; not in the crura, perhaps in the corpus striatum, and probably, as I thought from the character of the eclampsia, in the motor tract of the cortex. When you get as far as that I advise you to stop and ask another question, not where is the lesion, but what is its nature? It might have been hæmorrhage—that is a common cause of hemiplegia—but that does not cause fits nor optic neuritis. You may add that a girl of sixteen years of age is not likely to have cerebral hæmorrhage, but such cases do occur.

Embolism is another lesion it might have been. But an embolus is a detached thrombus. If so, where did it come from? From the left side of the heart? That means either fungating endocarditis or else mitral narrowing and a clot forming in the left auricle. But here there was no murmur, no distended auricle, no likelihood of embolism. Then there is red softening as a primary condition, very rare, and almost unknown in young people. Cerebral thrombosis, again, is unknown at our patient's age, and when it occurs in the sinuses of infants has very different characters. As to abscess, there again pathology helps us. Cerebral abscess is never primary; it is always the result of injury or of local or general pyæmia; most often, as you know, due to caries of the ear or nose or some other part of the skull, sometimes to suppuration in the chest or elsewhere. But abscess of the brain as a primary condition in a previously healthy person does not occur. Therefore we may exclude it, though it might account for the symptoms of our case. Then we come back to meningitis. I confess I thought this condition was present, because she was at the age for it, because the temperature was high, the course very rapid, and because vomiting, convulsions, optic neuritis, and ingravescent coma very often accompany meningitis. But there was more than meningitis; that may cause optic neuritis, but it could scarcely cause these curious fits, and therefore it seemed probable there was some lump, some focal lesion in addition to meningitis. What would it be likely to be? What is the commonest tumour of the brain in children and young people under twenty? Far and away the commonest tumour is tubercle, and next comes glioma. Assuming, then, that the lesion was a tuberculous meningitis, with a tumour of the same kind, we turn back to the local diagnosis and fix the former in the base and the latter in the motor tract of the right hemisphere, perhaps the cortex.

The objections to this diagnosis were the absence of ocular paralyses which usually go with basal meningitis, and the absence of signs of tubercle in the lungs, abdomen, bones and joints. Still, if we never make a diagnosis till we have every symptom in its favour, we shall in all but the simplest cases never make one at all.

Now comes the post-mortem examination. My diagnosis turned out to be wrong. Not absolutely wrong, for there was organic disease found, and it was situated in the brain in the right hemisphere, and in the motor tract. So far we had arrived about as near as an eminent predecessor of mine who flourished here early in the century. He lived long before the discoveries of Laennec, of Bright, and of Helmholtz, but it was said of him that when he had placed the seat of disease in one of the three great cavities—the skull, the chest or the abdomen—the post-mortem examination never showed it to be in another. That was a modest degree of accuracy, but to my mind it shows far more acumen for him to get as near as that, than for us to get as near as we sometimes do now. There was no meningitis, and the tumour was not tuberculous. Neither was it what is the next in frequency—glioma. It was a cyst. Now, cysts occur in the brain only now and then. Some of them are parasitic, cysticercus or echinococcus, but they occur very rarely. Others are, no doubt, the result of hæmorrhage from which the blood is gradually absorbed, leaving only the serum behind. That is very unlikely here, because hæmorrhage is rare at sixteen, and there was no pigment or hæmin crystals left behind. It was not parasitic, it was not hæmorrhage, but it may have been a glioma which underwent cystic degeneration, and I am inclined to think it was so. The cyst wall has not yet been examined

microscopically, but we may find some little bit of soft gliomatous tissue which would prove that to be the case. If not, we must call it a simple cerebral cyst. Such cysts are not very uncommon in cerebrum or cerebellum. Usually they are solitary, as in this case, but I have seen them multiple and associated with cysts of the liver and kidneys. Clinically, as we might expect beforehand, there is no difference in the symptoms of such a single large cyst and a solid tumour in the same spot; they both act alike as foreign bodies. If a leaden bullet had been put into this girl's skull in the place where the cyst was, it would have produced exactly the same effects. Therefore we diagnose the different kinds of tumour, not from symptoms, but from our knowledge of pathology.

Now, when a patient dies there are two or three questions we should always ask ourselves; I mean after the post-mortem examination. If we do not hold a post-mortem we learn nothing and gain nothing from the case, which may help ourselves and others in the future. It is all unmixed failure and regret. Therefore, let me urge you to make an autopsy whenever possible; nothing shows the thorough practitioner so much as his eagerness for this thankless but most interesting and most important duty. Every hour you spend in the post-mortem room while you are here will be time well spent, and will be invaluable in future practice

The first question we ask is, was our diagnosis right? I have drawn on the board what we did find. This is a horizontal section through the right ventricle, showing its anterior horn, the cauda, and the lenticulus, the thalamus, and the internal capsule, with its genu. It was in the posterior limb of the internal capsule that the cyst was found, about the size of a French olive. It encroached slightly on the lenticulus and rather more on the thalamus. Its situation explained the hemiplegia, and the other symptoms were due to the fact of a tumour being in the cranium, interfering with cerebral circulation and nutrition.

Well, our diagnosis was not accurate at all. I thought there was meningitis, but there was not. Perhaps more important than that, I thought it was a tuberculous tumour, when it turned out to be a cyst.

Secondly, we ought to ask ourselves, was our prognosis right? Did we expect the fatal termination? Here the prognosis was obvious. The poor girl had organic disease of the brain, and as she had incontinence of urine and fæces and increasing coma, a very rapid pulse and very high temperature, there was clearly but a short step between her and death.

The third question, the most important of all, did we do all that could be done to save her? Yes, so far as our present knowledge goes, because in such a case we can do nothing. If we had diagnosed accurately the seat and nature of the tumour, you can imagine the possibility of the surgeon reaching the cyst and removing the contents. But I am not at all sure that even then the event would have been different, and at present, I am afraid, we are very far from any such accuracy in diagnosis.

Those are the questions which we ought to ask after a post-mortem examination; and I hope you will agree with me that although we always learn something from a case in which we are right, we may learn still more from a case in which we are wrong.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Cases under Dr. Pye-Smith.

Mary	27.	Emphysema. Atheroma. Dilated left ventricle.
	31.	Mitral stenosis. Tricuspid regurgitation.
	34.	Broncho-pneumonia with fluid at right base.
	35.	Enterica.
	36.	Carcinoma of stomach. Pulmonary bruit.
	37.	Mitral stenosis and regurgitation.
Philip	21.	Congenital heart disease. Hæmaturia.
	23.	Acute rheumatism. Mitral regurgitation.
	25.	Recurrent left pleuritic effusion.
	29.	Left pleuritic effusion.
	35.	Mitral regurgitation. Acute cardiac dilatation and pericarditis.
	36.	Acute rheumatism.
	37.	Phthisis. Tubercular laryngitis.
	38.	Perityphlitis.
	39.	Spastic paraplegia. Spinal caries.
	40.	Right pleuritic effusion. Calcareous arteritis. Granular kidney. Extensive collateral circulation.

Cases under Dr. Taylor.

Mary	38.	Chronic Bright's disease.
	39.	Hysteria.
	40.	Growth of right kidney.
	41.	Hemiplegia.
	42.	Gastric ulcer. Hæmatemesis.
	45.	Chorea.

Mary 46. Cirrhosis of liver.
47. Mitral stenosis.
50. Exophthalmic goître.
Cot 56. Diphtheria. Tracheotomy.
57. Diphtheria. Tracheotomy.

Stephen 2. Acute rheumatism.
3. Cerebral tumour.
4. Gout.
5. Mitral stenosis.
6. Cirrhosis of liver.
8. Aortic stenosis and regurgitation.
10. ? Gastric carcinoma.
12. Phthisis.
13. Pernicious anæmia.
14. Emphysema and bronchitis.
16. Acute nephritis.
17. Bronchitis and emphysema. Stomatitis.
18. Gastro-enteritis. ? Cirrhosis of liver.
19. Tabes mesenterica.

Cases under Dr. Goodhart.

Philip 1. Phthisis. Lardaceous disease. Jacksonian epilepsy.
2. ? Cirrhosis. ? Malignant disease of liver, secondary to pylorus.
3. Diabetes mellitus. Acetonuria.
6. Subacute Bright's disease.
9. Chronic tubal nephritis. Dilated heart.
11. ? Cerebral tumour.
12. Diabetes mellitus. No glycosuria for nine days.
14. Phthisis. ? Caries, with pressure on nerve-roots.
17. Mitral disease. Tricuspid regurgitation. Adherent pericardium.
18. Phthisis. Pericarditis. Alcoholic neuritis. Enlarged liver.
19. Pericarditis. Mitral regurgitation.
20. Plumbism.

Mary 15. Phthisis.
16. Pyrexia. ? Cause.
17. Chronic bronchitis.
19. Advanced phthisis.
22. Chronic pleurisy ? Tubercular. Enlarged kidney.
24. Chronic nephritis. Cardiac failure.

Cases under Dr. Hale White.

Stephen 21. Fibroid right lung. Lardaceous disease.
22. Sciatica.
23. Cirrhosis of liver.
24. Enterica.
25. Enterica.
26. ? G. P. I.
29. ? Osteo-arthritis. (Æt. 7.)
31. Appendicitis. Operation.
32. Ascites. ? Tubercular peritonitis.
33. Acute rheumatism.

Stephen 35. Mitral regurgitation.
36. ? Carcinoma of liver.
37. Cirrhosis of liver.
38. ? Adherent pericardium.
39. Phthisis. Tubercular laryngitis.

Mary 1. Appendicitis. (Æt. 3.) Operation.
2. Gastric ulcer.
3. Osteo-arthritis.
5. Chronic uræmia.
7. Chronic bronchitis. Mitral regurgitation.
8. Chorea.
9. Acute rheumatism. Exophthalmic goître. Pericarditis.
10. Anæmia. ? Chlorosis.
11. Mitral constriction and tricuspid regurgitation.

"Clinical."

John 1. ? Cerebral tumour.
3. Typhoid.
4. Appendicitis (abscess). HCl. poisoning.
5. Appendicitis.
6. Fibroid lung.
7. Mitral regurgitation and stenosis.
8. Empyema.
10. Typhoid.
11. Intestinal obstruction (laparotomy).
12. Leuchæmia.
13. Hodgkin's disease.
14. Pneumonia.
15. Phthisis.

Miriam 17. Rheumatic fever.
18. Typhoid.
20. Pericarditis.
22. Rheumatic fever.
23. Dilated stomach.
26. ? Appendicitis.
27. Typhoid.
28. Pneumonia (apical).
29. ? Ovarian.
30. Dilated stomach.
32. Pneumonia.
33. Broncho-pneumonia.
34. Marasmus.
35. Diarrhœa and vomiting.
36. Tuberculous broncho-pneumonia.

In the Surgical Wards.

Cases under Mr. Howse.

Naaman 1. Necrosis of femur following acute infective epiphysitis.
2. Irreducible hernia. Reduced under A.C.E.
4. Lympho-sarcoma of neck. Excised

Charity 18. Complete prolapse of uterus.
20. Carcinoma mammæ. Excised.

Cases under Mr. Davies-Colley.

Luke	3.	Vesical pain.
	5.	Talipes equinus. Tenotomies.
	10.	Chronic palmar tenosynovitis. Drained.
	11.	Recurrent melanotic lympho-sarcoma. Excised.
	12.	Old fracture of tibia and fibula. (? Pott). Dislocation of ankle.
	21.	? Separated upper epiphysis of femur. ? Coxa vara.
	22.	Tumour of tongue. Diffuse. ? Epithelioma. ? Actinomycosis.
Lydia	4.	Lymphangeioma of cheek.
	4.	Dentigerous cyst (second right upper bicuspid). Incised and drained.
	7.	Talipes equino-varus.
	9.	Pedunculated lipoma of buttock. Excised.
	20.	Tuberculous knee. Excised.
	21.	Irreducible umbilical hernia. Radical cure.
Cornelius	5.	Ruptured ligamentum patellæ.
	18.	Compound Colles's fracture.

Cases under Mr. Lucas.

Job	4.	Epithelioma of ear. Excised.
	5.	Tuberculous epididymis. Castration.
	16.	Prostatic hypertrophy. Uræmia. Death.
	17.	Sarcoma of skull.
	21.	Epithelioma linguæ.
Lydia	11.	Melanotic sarcoma of forehead. Excised.
	12.	Myeloid sarcoma of tendon sheath of finger. Excised.
	12.	Old subcoracoid dislocation of shoulder.
	14.	Carcinoma mammæ with "Paget's eczema."
Astley Cooper	27.	Fractured patella.
	32.	Bullet wound in chest. Death.

Cases under Mr. Golding-Bird.

Lazarus	4.	Epithelioma linguæ. Kocher's excision. Death. (Aortic aneurysm.)
	8.	Tuberculous testis. Castration.
	11.	Rectal prolapse. Æt. 76. Excision of prolapse.
	15.	Vesical hæmaturia. ? Villous tumour.
	20.	? Chronic hydrocele. ? Hæmatocele.
	13.	Stricture. Chronic uræmia.
Martha	1.	Gumma of cheek.
	3.	Periosteal sarcoma of head of humerus.
	5.	Recurrent sarcoma of skull.
	17.	Fractured patella.
	20.	Rectal stricture. ? Tuberculous. Inguinal colotomy.
Cornelius	17.	Dog-bite on cheek.

Cases under Mr. Jacobson.

Naaman	20.	Necrosis of femur.
Dorcas.	1.	Carcinoma mammæ. Excised.
Dorcas	3.	Carcinoma mammæ. Excised
	Cot.	Naevus over parotid.
Patience	Cot.	Acute infective periostitis of femur. Extension into knee. Pyæmic abscesses. Incision, and later Furneaux Jordan's amputation through hip-joint.

Cases under Mr. Symonds.

Job	10.	Naso-pharyngeal tumour. Recurrence Removed.
	11.	Old backward dislocation of elbow. Operation for reduction.
Martha	14.	Deflected septum. Shaved off.
	15.	Hypertrophied turbinals.
Luke	16.	Tuberculous laryngitis scraped. Previous Thyrotomy.

Cases under Mr. Lane.

Job	14.	Old dislocation of elbow. New joint formed by operation.
Dorcas	5.	Callus after fractured first rib, causing pressure on brachial plexus. Callus removed.

Case under Mr. Dunn.

Lazarus	1.	Warty leucomatous patches on glans penis. ? Epitheliomatous.

Chapel News.

There is a celebration of the Holy Communion in the Chapel every Sunday at 7 a.m. as well as at 8.40 a.m.

Harvest Thanksgiving Services were held on Sunday the 16th inst., and were well attended throughout the day.

In cases of emergency, communications for the Rev Herbert E. Gunson (the acting Chaplain) should be sent to the Collegiate House, 9, St. Thomas's Street.

The Church Council met in the House Committee room on the 7th inst.

Notice.

Medical man, without family, required as resident and principal medical officer of a Sanatorium by the Sea.

His wife must be an experienced housekeeper, and both must be total abstainers.

Salary is partly fixed—£200 a year guaranteed—and partly dependent on patients' fees—an additional £100 to £300 a year. Board and residence included.

Application for further particulars should be marked on the outside "Sanatorium" and addressed to

The Dean,
Guy's Hospital, S.E.

Correspondence.

To the Editor of Guy's Hospital Gazette.

Children's Christmas Tea.

Dear Sir,—October marking the commencement of a new term, and since, also, at that time nearly all the men have returned from their holidays, I think I may take this opportunity of reminding your readers that we are again giving a children's tea this Christmas.

We most earnestly ask them to help us with funds and clothes—chiefly the former. Last year most of the men gave 2s. 6d., some gave more: we sincerely hope they will be as generous this year, if not more so. Surely what was only an experiment last year, and yet proved such a success, should receive more help this year.

If the students would ask their friends to help with the clothes and funds, a good sum would soon be collected; but, unfortunately, some think it is too much trouble, and others that "so-and-so is collecting, so why need I?" and so it goes on, and no one does anything.

We want to make the tea a Hospital affair, and, as such, all must help. This is not meant for students only, but for sisters and nurses also, who last year did a great part of the work.

Last Christmas nearly 500 children had a good substantial tea, saw the Minstrels and Punch and Judy, and on going home received a present from off a Christmas tree, besides a loaf of bread and half a pound of tea, etc. Were those children happy? Did they enjoy themselves? Ask the district nurses and others who work among them.

Now, why not let us try and make another 500 happy? For, after all, it does not cost much; but funds we must have, and surely it's worth a little trouble and a self-sacrifice considering the amount of good done.

This appeal, it is hoped, will also reach those who have left us, and who, remembering the many pleasant Christmases passed at Guy's, may be willing to help us.

The ages of the children range between six and thirteen years—boys and girls—and practically the same performance will be gone through as last year, but a notice as to what will actually take place will follow later on.

Funds may be given to the following gentlemen, who will also collect the same:—Messrs. F. S. Batchelor, R. T. Fitz-Hugh, J. A. Cleveland, F. E. Walker, V. E. Collins.

The sisters and nurses may give their contributions to the Matron, the Lady Superintendent, Guy's Institution, Sister Astley Cooper, Sister Stephen, Nurse Barnes.

T. W. LANDON.

Guy's Hospital, September 14th, 1898.

Pupils' Physical Society.

The Second Meeting of the Physical Society was held on October 15th, in the Library. Mr. V. E. Collins occupied the chair, and there was a very large attendance of members.

The following cases were exhibited and discussed:—

Mr. Hardy.—Tumour of cheek in a woman. The diagnosis was sloughing gumma, or epithelioma.

Mr. East.—Rheumatic nodules in a child.

Mr. Cleveland.—Lead-poisoning in a teetotaller. The source of the poison was traced to ginger beer.

Mr. Swan.—Chronic ulcer of the leg in an old man, with pityriasis rubra. Rodent ulcer, epithelioma, and mycosis fungoides were discussed.

Mr. Starling.—Locomotor ataxy (?) or general paralysis of the insane.

Mr. Booker.—Old injury of hip in a boy. This was regarded as separation of the upper epiphysis of the femur.

Mr. Thomas.—Scrotal tumour that had been tapped. ? Hæmatocele.

The meeting then adjourned.

Guy's Hospital Debating Society.

The Society will meet during this Winter Session on the following dates:—

November 5th, 1898.
December 3rd, „
January 28th, 1899.
February 25th, „
March 11th, „ (Ladies' Night.)

The Committee hopes that the debates will be well supported this session, and that they may be attended by more of the junior men of the hospital.

FRANK SHUFFLEBOTHAM, } Hon.
J. M. BRYDON, } Secs.

Royal College of Surgeons of England.

Notice is hereby given that the next Primary and Final Examinations for the Diploma of Fellow will commence on Thursday, November 10th, and Monday, November 21st, 1898.

Candidates are required to give not less than fourteen days' notice of their desire to present themselves for either of these Examinations.

Particulars relating to these Examinations may be obtained of the Secretary (Mr. F. G. Hallett), Examination Hall, Victoria Embankment, London, W.C., to whom all applications in reference to Examinations should be addressed.

The required Fees must be paid three days prior to the Examinations.

EDWARD TRIMMER,
Secretary.

October 3rd, 1898.

Passim.

A GENERAL meeting of the Students' Club will be held on Thursday the 27th inst., at 4 p.m., in the Surgical Class Room (No. 1), Museum Buildings, to receive the Auditors' report and Balance sheet. Dr. Pye-Smith will take the chair.

A CORRESPONDENT has sent us a copy of the London Bills of Mortality from September 28th to October 5th, 1714. In the list, out of a total mortality of 550, the following special causes of death may be of interest:—

Convulsions	136
Dropsie	15
Fever	105
French Pox	3
Griping in the guts	8
Head-moulshot	1
Rising of the lights	1
Smallpox	73
Stoppage in stomach	10
Suddenly	3
Teeth	24
Tissick	4

The large number of deaths from smallpox *in one week*, strikes one the most in these anti-vaccination times, and by a strange coincidence this week in the Registrar-General's report there is a note of a case of death from smallpox, the only one for some long period. We should like to have more opportunity of learning the symptoms, diagnosis, and treatment of "rising of the lights," now, we believe, a rare disease in this country.

IN the *Saturday Review* of October 8th was the following appreciation of our profession; we give the paragraph in its entirety.

Mr. Turner, in his introductory address on opening the winter session at St. George's Hospital, referred to the portraits of medical students in the pages of Dickens and Thackeray, which he said were drawn from the worst types of a bygone age. He expressed the view that to have lived down the writings of such masters of literature would have been a hard task for any class of student in any profession, but that the medical profession was now very fit for any one with high ideals, good health, good intellect and a capacity for hard work. The behaviour of the London medical students, he declared, would compare not unfavourably with that of the undergraduates of Oxford and Cambridge. Perhaps Mr. Turner's remarks were based on the principle of "give a dog a bad name and hang him." *At any rate, we have usually found the medical student to be an individual who combines the maximum of ill-breeding with the minimum of sobriety, and who may be generally classified under the genus "cad;"* though, doubtless, Mr. Turner regards the few exceptions as a hopeful and promising sign for the future. [The italics are ours].

How admirable is the polished courtesy of this anonymous ink slinger! There is, however, an honest old proverb that says "Judge a man by his friends," and we have only to thank the writer for this unconscious little character sketch of himself.

AND in the *Globe* of the same evening was this little piece of news: "A Dalziel's telegram from Algiers to-day says:—

A member of the staff of the *Combat* newspaper, who had written an insulting article reflecting upon Mdme. Tine, the wife of the Chief Judge of the Tribunal de Commerce, was soundly thrashed and severely injured by the two sons of the lady last night. They fractured the journalist's skull, broke his right arm, and inflicted internal injuries of such a nature that his recovery is very doubtful."

We could wish to meet the writer of the previous insulting paragraph on his holidays in Algiers on the same terms.

ALTHOUGH it is but early autumn, in another column we publish an urgent appeal from Mr. T. W. Landon for funds for his own especial and pet scheme, the Out-Patients' Tea on Christmas Day to the poor children of the district. The very sight of out-patients on Christmas afternoon will be sufficient appeal to most, but for the benefit of those who have not seen the fruits of Mr. Landon's labour, we would remind them that it is a big scheme, needing much care and planning beforehand, and, of course, funds. All subscriptions should be sent to Mr. T. W. Landon as early as possible.

IN another column we publish the list of awards made by the "Blues" Committee for this year, and it may perhaps not be out of place to remind some of the smaller constituents of the Clubs' Union—in this case the Bicycle and Swimming Clubs—of the great delay and trouble caused by their officers sending in no recommendations to the committee. The matter will now have to stand over till next spring, as it would be asking too much of the committee to meet again to award "Blues" for clubs who cannot take the trouble to properly carry on their own business, and who are regardless of the inconvenience they may cause to others.

AT the opening meeting of the debating Society, which will take place on November 5th,

the subject of Vaccination will be discussed. Mr. Robert Howard will open the proceedings by denouncing the action of the Government concerning this important subject, and Mr. Brydone will oppose the motion. Dr. Victor Jaynes, the Public Instructor in Vaccination for the Bermondsey district, has promised to take part in the discussion. We hope that the meeting will be well attended, especially by men who have not as yet commenced ward work.

The prospects of the Rugby XV. are quite good. In both games this season they have secured wins, and although the result against Kensington has been described as a trifle lucky—an opinion which we cannot say we agree with, for an easy penalty was missed—the form shown against Lennox proves we possess a pack of forwards who will take some beating, and their dribbling and rushes were quite the feature of the match.

The ground and ball, at Stamford Bridge, were wet, and accurate passing was impossible. The tackling was as a rule good, but we think Lewis should stick to and get hold of his man more often. Nowadays we fear a centre three-quarter, at all events in metropolitan football, has somehow got the idea he is there to intercept passes only, and we can only remind him that this is not so. Sime and Rae were both good; the former secured his usual try. Ransford's play had much improved since the previous Saturday. M. C. Wetherell and Watson Smyth are displaying better combination, and the latter's try was the result of a good run. It is a pity that no reliable place-kick can be found in the whole team.

The Association Team, on the other hand, has not commenced quite so successfully, being badly beaten by Hastings on Wednesday last. As a matter of fact, the match was not a fair test of the team's merits, as only two members of the first eleven were playing.

We should like to remind all students, especially Freshers, that towels are not given away gratuitously at the Ground at Honor Oak Park, but that a charge of one penny (1d.) is made for the temporary use of each one. This small charge should be paid to Harris before leaving the pavilion.

Everybody will be glad to hear that Mr. Trevor, who was ship's doctor on the liner *Mohegan*, which was wrecked off the Lizard last week, has turned up again at Guy's safe and sound. To remain for seven hours in the rigging of a total wreck in a heavy sea is an experience few men would like to go through, and Mr. Trevor is to be heartily congratulated on his ultimate rescue from such a perilous position.

Contraction of Flexor Muscles of Forearm following Splint Pressure.

CLINICAL LECTURE By Mr. DAVIES-COLLEY,

October 5th, 1898.

Gentlemen,—I propose to take for the subject of my lecture a case of deformity from injury in the upper extremity of a child. It is of a kind of which I have seen no account in ordinary text books, but a few short reports of similar cases are scattered through the medical journals. On the other hand, I think this is not a very uncommon condition of things, because three such cases have come under my notice during the last four years. One was shown me by my colleague, Mr. Howse, and the other two have been under my own care, and I have an impression that I have seen several other cases of which I have no notes.

I will begin by reading a description of this particular case of which I have got a full report. "A little girl, aged six, came under my care on the 18th May of this year. Three years before she had fallen off a cart and broken her right arm. The doctor said that there were three fractures about the elbow-joint, and that the humerus was split up from the elbow to about the middle of the bone, where there was another transverse fracture. The arm was set and got quite well, except for a lump which formed just above the elbow, and prevented her flexing her arm. This lump, together with a ridge which formed along the line of the splitting was removed by Mr. Pollock at her own home in the December after the accident. After the operation the power of flexion returned. Mr. Pollock intended to operate a second time for the flexion of her wrist and fingers but died before he could perform the operation.

"The patient is a bright little child and seems fairly healthy. Her elbow is very prominent, but otherwise quite normal. Her wrist is flexed at a right angle. Her metacarpo-phalangeal joints are extended, while her interphalangeal joints are flexed. The patient can extend her forearm perfectly, but is unable to extend her

wrist in the slightest. She can extend her phalangeal joints very slightly. The forearm is somewhat pronated, and her power of pronation and supination is very limited. On attempting to extend her wrist for her, it is found that the movement is forcibly resisted by the tension of the flexor tendons. She seems to suffer from no loss of sensation. Rather above the elbow in front, there is a T-shaped scar, and on pressure in this situation a few small tender nodules are felt." That is no doubt the scar of the operation by which a small piece of bony fragment or callus was removed by Mr. Pollock. The only other point which I have added in my own report is, "The flexor muscles of the forearm are wasted and hard."

(At this point Mr. Davies-Colley made a rough diagrammatic sketch on the blackboard, showing the forearm slightly pronated, the wrist bent, the metacarpo-phalangeal joints straight, and all the fingers hooked.)

The first idea that would naturally occur to you, when seeing a case of that kind, would be that there had been some injury to the nerves governing the part. This case came under my notice with the history that it was a case of injury to the musculo-spiral nerve. The dropped wrist looked very like this injury. I find that when men are shown a case of this kind, either in the wards or at an examination, they have very great difficulty in diagnosing an injury to a nerve which has lasted for any time. The way to set about it is this. Injuries to nerves usually produce after a time a certain peculiar deformity. Thus, for instance, injury to the ulnar nerve usually causes hyper-extension of the first phalanx of the little finger and of the ring finger, with flexion of the other two phalanges. Injury to the musculo-spiral nerve produces a bending of the wrist and of the metacarpo-phalangeal joints of the fingers. You often see such cases produced by pressure from a crutch. Besides that, in looking into the case, you will generally see where there has been an injury to the nerve, the skin becomes glossy and smooth; there is often a slight blueness of the surface, and the skin may be the seat of an eczematous rash, and the nails are apt to be very badly developed. There may also be some peculiar wasting, as in the case of injury to the ulnar nerve, when you will see the metacarpal bones stand out very prominently with hardly any flesh between them.

Then next you will set to work to examine by manipulation. The nerve is usually a mixed one, so you will test first sensation, and then movement. In regard to sensation, when you examine a patient's hand whom you suppose to be suffering from an injury to a nerve, remember this: It is not enough for the patient to say that he can feel in the region supplied by the nerve. This may be due to anastomosis with adjacent nerves. You must ask him if he feels the same as when you pinch some other part of his hand, some other finger. He may reply, "No, it feels numblike," or use some word to express the fact that the sensation is different, and much less, probably, than in the parts which are normally supplied.

Then in regard to movement, you must examine carefully whether the movement produced by the muscles which are supplied by these particular nerves exists. For example, in the case of the ulnar nerve you ask the patient, "Can you separate your fingers and draw them together again?" On the other hand, if he can flex the thumb so that it stands out forwards and at right angles to the palm, his median nerve is all right. Then in the case of the musculo-spiral nerve, you ask him to straighten his fingers or thumb to see that the tendons work. When I first examined this case I only got as far as this: It is not the musculo-spiral nerve which is injured, because the patient can feel quite well in the part supplied by the radial nerve. It was then noticed that when the child tried to extend the fingers the tendons moved distinctly, although the fingers hardly moved at all. It was not until that was observed that we were quite sure that the musculo-spiral nerve was not paralysed, and that therefore the deformity was due to some other cause.

Then we had to test the other nerves. For instance, a part of the deformity was rather like the result of paralysis of the ulnar nerve, but the child could separate the fingers and draw them together again, therefore it was not the ulnar nerve that was paralysed. Then again, the parts supplied by the median nerve had perfect sensation, and so there was proof that it was not affected.

What, then, was the cause of the deformity? I believe it was due chiefly or entirely to inflammation of the muscles which form the soft mass in front of the forearm, just below the elbow. How is that produced? I suppose mainly by injury to the muscles. I have seen the report of a case by an old Guy's man, Mr. Tubby, in which, after a fracture of the forearm, this condition was produced in the muscles, with considerable contraction such as I have described. And I can well believe that this is sometimes the case. I do not think I have

seen such a case myself, but I have seen corresponding cases in the lower extremity. For example, I had under my care some time ago a boy with very bad talipes equinus. Not only was the heel drawn up, but the toes were pulled down so that they looked like claws. The history was that two years before he had a compound fracture of his tibia and fibula, and the muscles of the calf were injured. The part healed after long suppuration, and the consequent contraction had drawn down the front of the foot and the toes also. When I came to operate upon this boy for this deformity which prevented him from walking, I had to divide not only the tendo Achillis, but also all the tendons behind the malleoli. But this was not sufficient. Some weeks after I had performed that operation I had to make an incision by the side of his tendo Achillis, and I had to divide the flexor longus hallucis, and not until then was I able to get the foot and the toes into a proper position. This was, I think, an example of deformity produced by a myositis in the muscles of the calf.

In most cases, however, this deformity follows upon a fracture of the lower end of the humerus, and its cause is, I believe, the way in which the case is ordinarily treated. A child trips and falls upon the elbow, and the lower part of the humerus is broken off. Not only so, but the fracture may extend downwards, separating the bony centres from one another, and a great deal of swelling follows. It is doubtful what is the best way to treat these cases. Some people say you ought to treat them in a straight position, while others flex the elbow at a right angle. I prefer the flexed position as a rule. But in order to get them flexed at a right angle, you must employ splints. A rectangular inside or an outside splint fits the humerus edgways, so to speak. You want something flat to put against the flattened lower end of the humerus. The anterior rectangular splint answers this purpose.

Unfortunately, the angle of this splint is apt to press upon the soft parts two or three inches down the front of the ulna, and the result is that in such a case you get inflammation in this region. You may get a sore place formed upon the skin, or you may get general inflammation of the muscles there, which may go on to suppuration both of the skin and of the soft parts beneath it. And so, when you take off the splint a little time afterwards, you may find, perhaps, a little sore place on the skin, and there will be around this a certain amount of induration and possibly discharge oozing out here and there from an opening in the skin. There has been inflammation of all the soft parts which lie between the anterior surface of the ulna and the skin; in other words, you have what is called a myositis. You will see in this arm (photograph of the patient produced) that there was induration at that point, induration of the skin and also of the muscles underneath it, which are wasted. In another of my photographs here you can see a little dark patch where the sore place came which was the cause of this deformity. Just about two or three inches below the bend of the elbow the soft parts were hardened, and there was some discoloration of the skin where the angle of an anterior splint had probably rested. When you understand that all the muscles right down to the bone are inflamed and converted into granulation tissue, and that this becomes fibrous tissue, which subsequently contracts, you will easily see how the symptoms were produced.

In the case of the pronator radii teres, the contraction produces some pronation and interferes with the rotation of the forearm. The contraction of the flexors of the carpus causes a rigid bending of the wrist, while that of the flexor sublimis and the flexor profundus and the flexor longus pollicis causes the bending of the phalangeal joints. The metacarpo-phalangeal joints of the arm are extended. Why is this? For this reason probably: when the wrist is bent the extensors will be put upon the stretch, and these, acting chiefly upon the first phalanges, extend them. The second and third phalanges are acted upon directly by the flexors, so that they are bent.

I do not feel sure that in all these cases the nerves escape. In one of my cases where there was a dark patch showing the cicatrix of the contraction of the muscles, I made an incision nearly the whole length of the forearm and examined the muscles, which I found converted into fibrous tissue. But I also found that the median and the ulnar nerves were affected. Although when they entered the cicatricial tissue they were quite white and plump and of normal size, yet when they came out from the cicatrix below they were small, purplish and flaccid. Therefore, in that case, it seemed to me that a certain amount of the symptoms produced might be due to pressure upon the nerves, as they were involved in this cicatricial tissue. But in the particular case which is the subject of my lecture, I could not find out that the nerves were at all affected.

I have shown you, not only how the deformity is caused, but how to diagnose it. You go over

all the nerves and find the symptoms will not fit in with a possible injury to one or all the nerves. Then you feel the arm, and you ascertain that there is a hard atrophied condition of the muscles.

As to the treatment: in the first place, as in many other cases, prevention is better than cure. You must be careful if you decide to put up the elbow after fracture of the humerus in the flexed position, which I think is the best, not to apply the splint so as to press the angle of it against the upper portion of the front of the forearm. I should be inclined myself to keep the forearm in position by means of plaster of Paris.

But, however you put it up you ought to look at it from time to time within the first few days to see whether the swelling is increasing, and if the patient complains of pain. Remember there is not much danger of non-union. What you have to fear is that the bone may unite in a bad position, and with such a condition as I have described, from the pressure upon the soft parts causing inflammation. Then, in the course of two or three weeks, you should begin to make passive movements, and extend the forearm, and see whether there is a proper angle between the inner border of the forearm and that of the upper arm. Also see, by passive movement, whether it is possible to bend and extend the elbow properly. You are very likely, indeed, in such cases to get either displacement forwards, or displacement backwards, of the ends of the bone, and if you do get that you are sure to have some considerable deformity and impairment of movement. But with regard to the particular subject on which I am lecturing to-day, the chief advantage you gain by this frequent examination is that you can avoid any considerable pressure upon the soft parts which are in front of the elbow, where it is apt to be followed by very serious results. Supposing, however, you got the deformity, how are you to treat it? You will not get much good by applying splints. You have no idea of the rigidity of the muscular contraction. If you try to extend the wrist and phalangeal joints you will hurt the child and probably produce no effect whatever.

Here is the report of another method of treatment. You will find it in the *Lancet*, in March of this year. It is as follows: "Mr. Raymond Johnson brought forward the case of a boy, eight years of age, who developed extreme contraction of the wrist and fingers, after a fracture of the lower extremity of the humerus. The fracture had been treated with wooden splints, which, as the result of undue pressure, had produced a sore on the front of the forearm. An exploratory operation had shown that the condition of the limb was not dependent upon any damage to the nerves at the seat of fracture, and the case was regarded as an illustration of Volkmann's ischæmic paralysis. The paralysis and contraction, especially affecting the flexor muscles, were dependent upon inflammation and subsequent fibrous degeneration of the muscles caused by the application of splints sufficiently tight to interfere seriously with the circulation through the part. Some slight degree of contractility still remained in the affected muscles. In order to relax the contracted tendons a short piece was excised from the middle of the shaft of the radius and ulna. The effect on the contracted wrist and fingers was satisfactory, but unfortunately the divided bones had repaired only by fibrous tissue, and a leather splint was necessary to give strength to the limb. Mr. Edmond Owen had met with three cases of this sort all in children. He described one in which paralysis of the forearm had followed fracture in the upper part. He had cut down upon the median nerve and found it healthy, but the flexor muscles were in a state of fibrous degeneration. Division of the contracted tendons had produced an unsatisfactory result. Resection of the bones afforded the best promise of relief, but the surgeon must be prepared for non-union of the divided bones."

In any case I adopted a different treatment, of which I will read to you the report: "An incision, three inches long, was made on the front of the forearm, just below the elbow-joint, in the line between the internal condyle of the humerus and the outer border of the pisiform bone. The superficial fascia and fat, amounting to about half-an-inch in thickness, were cut through and the deep fascia exposed. This was then cut through and dissected off the underlying muscles. These were found to be very much wasted, and to be formed to a large extent of fibrous tissue; they were also intimately connected with the median and ulnar nerves, which were rather swollen." I may say, however, that they looked quite healthy otherwise. Perhaps they looked large in comparison with the condition of the muscular tissue. "The following muscles were then partly cut and partly torn through: The flexor sublimis, flexor carpi ulnaris, palmaris longus, flexor carpi radialis, most of the pronator radii teres, and part of the flexor profundus. Vigorous efforts were made in the meantime to straighten the wrist and

fingers, which succeeded after the division of the above muscles." That is rather a too sanguine account of this case. I succeeded in extending the wrist quite well, but I could only extend the fingers by applying considerable force and pressure. "The wound was then washed out with perchloride, and sewn up with catgut and a continuous horse-hair suture. The forearm was then put on a back splint with separate divisions for the fingers. The wound healed by primary union." By this operation we got a perfect extension of the wrist, but the fingers remained bent, and our efforts to straighten the fingers by bandaging only resulted in hurting the child a good deal, and causing small sores to form on the ends of the fingers and knuckles.

About a month after the first operation I put the child under chloroform again, and this time I made an incision, about two inches long, on the anterior aspect of the forearm, on the inner side of the tendon of the palmaris longus. I examined carefully the median nerve, which was quite healthy, and I hooked it out of the way, and proceeded to cut through all the tendons, an inch and a half above the upper border of the hand. I divided the flexor sublimis digitorum, flexor profundus digitorum, flexor longus pollicis, and it was only when I had cut all these tendons that the fingers and thumb were completely relaxed. We then washed the parts well, and I sewed up the wound, and put on the same splint again. The wrist and fingers were now perfectly extended, and in a few days the whole wound had healed by primary union.

But we went through a very unpleasant experience after this, for unfortunately the child, about eight or ten days after the operation, became feverish and had a sore throat, and it was soon evident the child had got scarlet fever. We had to send her up to the Fever Hospital, and I was very much afraid that as the result of this attack of scarlet fever the wound would break down and the child would have suppuration, which would probably have neutralized the effect of the operation. Fortunately this did not happen, and when I saw her yesterday week, the hand was in a perfectly good position. It looked quite natural, and she could move the fingers about and separate the thumb from the fingers, or draw them together, but she was unable to bend her fingers. It is only three months since the last operation, so it is too early to say what the final result will be. But at any rate we have removed the deformity entirely, and the child is now able to move the fingers and thumb fairly well.

I think, therefore, that on the whole, when you diagnose a case of this kind, the best plan would be, first, to cut into the parts where the greatest contraction of these muscles has taken place, and divide them, being very careful to make a large open wound and expose the nerves, so that you may be able to avoid injuring the nerves themselves. And try to get it to heal by primary union. If that does not succeed in removing the deformity, you had better make an incision again about the wrist and divide the tendons in that region.

Guy's Hospital Dental Society.

There was a meeting of the above Society on Tuesday, October 11th, at five o'clock, with the President, Mr. Hopson, in the chair, at which over fifty members were present. The minutes of the last meeting having been read and confirmed, Mr. Hopson, the President for ensuing year, then addressed the meeting.

PRESIDENTIAL ADDRESS.

Gentlemen,—There is an old saying, and withal a true one, that "you never know your luck." Certain is it, that when as nearly as possible ten years ago I joined this hospital, I had no idea of the honour to be conferred upon me by this Society; for to occupy this chair as your president is a distinction which I appreciate very highly. But all honours, be they great or small, carry with them certain responsibilities, and entail the performance of certain duties: further, I am informed that one of the duties attaching to my office is that I should on this occasion deliver something in the nature of a Presidential address, and in this particular we are sharers in good fortune, for precedent has decreed that any remarks made should be brief.

According to the Blue Book, this Society was founded in 1894, but I venture to think that the initial step towards its foundation was taken very early in the present century, when Joseph Fox delivered at this hospital the first lecture on dental surgery given in any medical school in London. Quite recently I read with much entertainment and advantage to myself, two works from his pen; one published in 1803, under the title of "A Natural History of the Human Teeth," and the other a sequel, published three years later, under the title of "The Diseases of the Teeth, the Gums, and the Alveolar Processes." They contain an abundance of facts which testify to his wonderful powers of observation and deduction. It is interesting to note that whereas a chapter of upwards of twenty pages is devoted to the extraction of the teeth, *two* pages suffice to describe the various methods of filling them. Some of the difficulties which he experienced have not been altogether banished from our practice to-day. For example, Fox commences

his article on "Stopping the Teeth" thus: "It frequently happens that persons apply to have this operation performed with an expectation that it will relieve the toothache; the error of this opinion will appear"; again, "A decay in the central part of the teeth is the most favourable situation for retaining the stopping; when it is in the sides or between the teeth, the pressure of the food is liable to displace it, and therefore it requires frequent renewal." He evidently did not believe in the multiplication of instruments, for in describing those requisite for filling he says, "They consist of a hook for picking extraneous matter out of the cavity, a straight and a curved instrument for pushing the stopping into the tooth, and an instrument with a bulbous-formed end, to be used as a burnisher in polishing the surface of the stopping." Both books are admirably illustrated with copper-plate engravings, and many of the specimens, models and preparations there figured are to be seen in our bone museum. Fox was succeeded in 1825 by Thomas Bell, and here we meet with a man of most eminent scientific attainments, not only a Fellow of the Royal, but also President of the Linnæan and Ray Societies, and in the words of Erichsen "he had the great merit of applying the general rules of surgery to the art of dentistry." His contributions to the various societies to which he belonged were both numerous and original. After thirty-five years' service he retired in favour of his hardly less distinguished nephew James Salter, and it was only last year in this place that the incident of his death afforded me the melancholy opportunity of recalling the excellent work he had done for his hospital and his profession. Henry Moon, who succeeded Salter, contributed many valuable papers to our Reports. He unfortunately predeceased Salter by a few years.

With a line of such distinguished dental surgeons it was almost natural that the proper relation of dentistry to general surgery should have been strongly impressed on the governing body of our hospital, and hence we find that "The Treasurer and Governors of Guy's Hospital, acting on the recommendation of the Medical Staff, resolved at a Meeting of the Court of Committees held on Dec. 19th, 1888: That the Dental Department of the Hospital should be extended by the establishment of a School of Dental Surgery, to be called the Dental School attached to Guy's Hospital." Happily, he whose unbounded energy carried the scheme through to such a successful issue is still with us, and our school will ever be associated with the name of Newland-Pedley.

The majority of gentlemen present can hardly imagine the dental department as it existed at that time. The dental surgeon attended three days a week at 1.30 p.m. He was assisted by three or four students, who held the appointment of dental surgeon's dresser for two months at a time. Gas cases were not numerous, fillings less so. In fact, the exhibition of an anæsthetic was generally occasioned by the persistence of portions of lower third molars, etc. Friday was the great day, because then attended cases of especial dental and surgical interest.

In the following May the original staff of the dental school was appointed, and it comprised a dental surgeon, six assistant dental surgeons, and two anæsthetists. Those were merry days. Still we worked under certain disadvantages. I hear men sometimes complain of the obsolete chairs in the extraction rooms. I ask them how they would care to use those same chairs and that same room for all the work they now do in the conservation room. We had all the practice, all the teaching, and no probationary work. By October we mustered six students, and had in addition a small specially erected conservation room, equipped with twelve chairs of an improved type, still wooden, however. This in turn was speedily outgrown, and so on and on, until to-day, we find our present quarters hardly large enough.

Gentlemen, our school is still in its childhood, but it has thriven remarkably well, its constitution is sound, its family history everything that could be desired. Our profession, as a profession, is still young. Its family history is unfortunately not quite so satisfactory. One of its parents was rather wild in his youth, he played truant from school, kept low company, and acquired bad habits. Still much has been done during the past twenty years towards removing those causes for prejudice which exist, and surely not the least in power and importance is the establishment of an intimate alliance between a dental school and a metropolitan hospital. I remarked earlier that all honours carried with them responsibilities. Guy's Hospital has honoured the dental profession, and we in particular have incurred responsibilities, which do not by any means cease with our period of study here, but rather tend to increase, when we go away into that wider field known as private practice. There, owing largely to the loose manner in which the first dentists' register was compiled, and in part either to the imperfect nature, or it may be the lax administration of the Dentists' Act, many difficulties have to be faced, unscrupulous and degrading methods of practice competed with. This is a subject upon which it is distasteful to dwell, and I merely wish to emphasise the fact, that a backward step, however small, on the part of one who has received a professional education, and therefore knows better, does more real harm than all the vulgar advertising displays on the part of *some* of those whose mere title to be placed on the register is that they were practising before 1878, because by his action he is perpetuating an evil which time itself would eventually eradicate. Let us look to it, therefore, that the reputation of the school which we have espoused, of the profession to which we aspire to belong, of this hospital which has stretched out a hand to us, and lends us the influence to be derived from the prestige attaching to its great name, does not suffer at our hands. May it always be said, nay more, I ask you to make it known, quietly and unobtrusively, and yet at the same time, by your example, unmistakably, that the true characteristics of a Guy's man are to be found, not merely in the high quality of his work, not solely in the ever ready practical skill he exhibits in the treatment of all cases which come

under his care, but also in the exalted and unimpeachable standard of his code of professional ethics. So shall we prove ourselves worthy of the motto with which we have been endowed. "Dare quam accipere."

Several specimens of interest were then shown by Messrs. Dawson, Dowsett, Umney, and Morrell; afterwards Mr. Ash was called upon for his paper on "Dead Teeth," followed by a discussion, in which the President, Messrs. Bell, P. S. Campkin, Clarke, Dowsett, and Wilks joined. A vote of thanks was then passed by the President to Mr. Ash for his paper, and Mr. Dowsett proposed a vote of thanks to the President for taking the chair. The meeting then terminated.

Introductory Remarks to Dental Students.

By Mr. W. A. Maggs.

According to time-honoured custom, I will begin the course of lectures on Dental Anatomy by addressing a few words of welcome and advice to new students.

Experience teaches me that success in after-life largely depends upon the manner in which the student takes advantage of the required two years' hospital tuition—all too brief a period to obtain the manipulative dexterity which is so essential for the practice of our profession.

You must be thorough and in earnest from the beginning to the end of your student life; and be assured steady progress at the chairside will alone give you the necessary skill and confidence. A large part of your time will be spent in attendance at lectures and in dissections, but the whole of your work can be done, and well done, provided you are industrious and methodical; and, finally, success at the Royal College of Surgeons will follow in due course, and the anticipation of the examination need not be a perpetual nightmare to you.

Many of you may have lately read in the Medical and Dental Journals the discussion at the General Medical Council upon the education of the dental student.

The main difference of opinion consisted in the advisability, or otherwise, of teaching the embryo dentist something about the principles and practice of Medicine and Surgery. To my mind there can be only one answer, and that is in the affirmative.

The tendency of late years has been to assimilate more and more the dental curriculum of the Royal College of Surgeons of England to that of the Conjoint Board, so that a further onward step will enable you to become medical men in addition to dental practitioners.

In my opinion, the dentist of the future will first be on the medical and next on the dental register, but that as a legal minimum standard will probably not be required during my lifetime.

However, I would advise as many of you as have the time and means to strive for the double qualification. The increased medical and surgical knowledge obtained will be for the benefit of your patients, the elevation of the profession, and for your own advantage.

As professional men I hope you will learn at this hospital a keen appreciation of what is known as *medical ethics*. It has been said: "Many codes have been drawn up, and much detailed description of these duties given, but they are probably all summed up in the one duty of being an honest gentleman."

As young men you may sometimes be inclined to disparage another's work, but pause before doing what is unworthy of a gentleman! Consider that unusual difficulties may have arisen and prevented the operator from doing better, or the patient may not be amenable to treatment. Always be generous in your criticism, and you will find it a good rule to say nothing about another man's work, unless you can praise it.

A very small percentage of one's patients seem to take a delight in going from one practitioner to another, and of complaining about the ability and skill of the former dentist.

I would caution you against such patients, for you in your turn may suffer at their hands.

In order to possess a practical knowledge of Dental Anatomy I wish you to become acquainted with the dental specimens in our Museum; and let me tell you that Guy's Comparative Anatomy Museum is probably unsurpassed by that of any other hospital. It contains the typical dentitions of most vertebrate animals.

The Natural History Museum is a favourite with me, on account of the excellent serial grouping of dental specimens.

The Museum of the Royal College of Surgeons of England is also of great interest, but it is unfortunately closed on Saturdays—the most convenient day for us.

The Museum of the Odontological Society of Great Britain is open to students on Monday, Wednesday and Friday evenings, upon presentation of a member's card, and all the dental staff of this hospital are members.

The privilege of attending these various institutions should not be ignored.

As regards books, *Tomes' Dental Anatomy* is the text-book chiefly in use, and the last edition, published early in this year, should be carefully studied.

Owen's Odontography, 1840–1845, is a valuable book of reference. It is the greatest work on Comparative Odontology in our language, and the engravings are splendidly executed. *Flower & Lydekker's Mammals* is also an excellent reference book. *The Guide Books of the Natural History Museum* are useful, as they are practically epitomes of the standard works upon Fish, Reptiles and Mammals.

The Lexicon of the New Sydenham Society is the best dictionary for derivations of technical words, medical and dental.

Guy's Library contains most of the standard dental works, and the current literature. Should any of you need a book not therein contained, you may suggest it in the recommendation book, and if approved it will be purchased.

The Library of the Odontological Society of Great Britain is open to visitors on Monday and Friday evenings upon presentation of a member's card.

The synopsis of lectures upon Dental Anatomy is given in the prospectus.

The teeth of Man will occupy our attention until Christmas, when I will show you upon the screen some photo-micrographs. The dentitions of the lower vertebrate animals will be considered during the latter half of the session, and the course will be concluded by visits to the Natural History Museum.

Sport.

Rugby Football.

GUY'S v. KENSINGTON.

This, the first match of the season, was played on our ground on 8th inst. before a fair number of spectators, and resulted in a rather lucky win for Guy's by 2 goals to 1. Guy's winning the toss, Kensington kicked off towards pavilion goal, and play settled down near our twenty-five line. For some time Kensington were very dangerous, and went very near scoring on more than one occasion, Guy's having to touch down. From the drop out our forwards transferred play to Kensington quarters, and from some loose play in front of goal were awarded a penalty, but the kick failed. Several scrums then took place in midfield. One of these our forwards wheeled and carried the ball to Kensington twenty-five, where Sime picked up, and after a good run scored, Thomas converting. Nothing further was scored up to half-time. Kensington again went off with a rush, and scrums were frequent in and about our twenty-five, from one of which one of the Kensington halves, scored a try which was converted. After this more even play followed, nothing worthy of note occurring till shortly before time, when Watson-Smyth, getting well away from the scrum, transferred to Lewis, who passed to Sime, the latter scoring, Thomas kicking a good goal, the game ending as above. Team :—

Guy's.—A. C. Ransford (back); F. W. Sime, C. T. Hilton, J. Lewis, and J. H. Wilkes (three-quarters), M. C. Wetherell, C. Watson-Smyth (half-backs); R. C. Mullins, D. H. Trail, T. P. Thomas, A. A. Smith, H. A. Cutler, H. S. French, G. Shorland, and E. H. B. Milsom (forwards).

GUY'S v. LENNOX.

This match was played at Stamford Bridge on the 15th inst. The weather was wretched, a perfect downpour of rain during the second half rendering accurate passing among the backs well nigh impossible.

Mullins kicked off, and play for a time remained in neutral territory. The hospital forwards then dribbled down, headed by Thomas and Smith, and Sime, picking up in the loose, crossed the Lennox line. Thomas made a good shot at goal, but the wind carried the ball wide.

On resuming, Guy's forwards carried all before them, and dribbling and tackling in irresistible form, reached the home twenty-five. From a scrum the ball came out to Watson-Smyth, who ran over with a good try. Ransford's kick was a very poor attempt. Up to half-time the ball remained in Lennox quarters, where Thomas twice essayed to kick a goal from penalties, but without success.

In the second half the game was more even, but nothing was scored, and an essentially forward game ended in a victory for Guy's by 2 tries (six points) to nil.

The forwards showed that they are a good level lot, doing plenty of work, tackling hard, and dribbling fairly in the open. They should easily beat most of the packs they are to meet. The three-quarters had no opportunities of distinguishing themselves, but tackled and kicked fairly. The half-backs played very well under the circumstances, and Watson-Smyth, with more experience and a better knowledge of the tactics of those with whom he is playing, should develop into a useful man. Ransford played his usual cool and sound game at full-back. We venture to hope that this year the fifteen will not take matters easily when opposed to a weak side, but get all the points they can. We have little fear but that they will win most of their matches, and it would be a source of great gratification if they could maintain an unbeaten record this season. Keenness is the secret of success, and with Mullins and Thomas at the head of affairs, there should be no lack of this element. Team :—

Guy's.—A. C. Ransford (back); F. L. Rae, F. W. Sime, J. Lewis, C. T. Hilton (three-quarters); M. C. Wetherell, C. Watson-Smyth (half-backs); R. C. Mullins (capt.), D. H. Trail, A. A. Smith, T. P. Thomas, H. A. Cutler, G. Shorland, H. S. French, K. V. Trubshaw (forwards).

GUY'S 2nd v. KENSINGTON "A."

This match, played at Wood Lane on October 8th, resulted in a draw, neither side being able to score. Guy's lost the toss, and had the wind against them during the first half. The play was of a very even character, each side in turn pressing. In the second half Guy's should have scored through a penalty kick in front of goal. Team :

Guy's.—E. W. Jupp (back); J. T. Hicks, C. D. Pye-Smith, G. Evans, C. Cooper (three-quarter backs); W. Jarvis, L. Penn (half-backs); R. C. Lawry, A. H. Wall, A. R. Thompson, C. J. Pucking, G. Nunn, A. W. Gater, M. A Collins Beattie (forwards).

GUY'S "A" v. LENNOX "A."

This match was played at Honor Oak Park on Saturday, October 15th, and ended in an easy win for Guy's by 3 goals (fifteen points) to nil.

Guy's winning the toss, Lennox started the game from the pavilion end. Play for some time was very open and interesting, and Guy's soon attacked strongly, the forwards heeling out splendidly and giving the backs plenty of chances, which they were not slow in accepting. Pye-Smith was the first to score, after some very pretty passing. Brydone kicked a fairly difficult goal.

Soon after the kick-off another round of passing enabled Pye-Smith to cross the line near the posts, Brydone again converting. Play now became very uninteresting during the rest of the game owing to the greasy state of the ball, which made it very difficult to

hold. Just before the call of time Wilkes scored in the corner, which Brydone converted with a magnificent kick.

Remarks.—The forwards played a very good game, especially in the first half, but they made the mistake in the second half of heeling the ball out instead of keeping loose and rushing it. Pinching was very conspicuous in the line, and is certainly an acquisition to the team. Jackson and Brydone were good, the latter's place-kicking was the feature of the game. The three-quarters all played well, but the two centres pass much too soon, *i.e.*, before they get near the opposing three-quarters, and, therefore, do not give their wings much chance. Jupp played very well, but must field the ball better. The team showed great improvement from the previous Saturday, and will be quite up to the average of former Guy's 2nd teams.

Association Football.

GUY'S v. HASTINGS.

It was hardly a representative team that went down to Hastings on Wednesday, the 19th inst., several men being absent owing to exams. Guy's won the toss, and played with the wind. Hastings at once attacked, and within ten minutes they had scored twice in rapid succession. The play was now of a very even character, some very neat passing being displayed. Towards the end of the first half Hastings scored again, and subsequently we obtained a corner, from which our only goal was obtained.

In the second half the play was of a still more even nature; accurate work, however, was marred by some heavy rain. Hastings put on 3 more goals, each one being obtained by their forwards getting clean away.

We had rough luck in not scoring at least twice, once there being an absolutely open goal. Although we were beaten by 6 to 1, the score does not represent the game, as, on the whole, we had quite as much of it as Hastings.

Smith, in goal, saved well at times, but he lacks judgment, as if he had come out once or twice instead of waiting for the man to shoot, goals might have been saved. Robson, at back, did a lot of good work, Pearson being considerably handicapped by his leg. Of the halves, German played an excellent game, and had hard luck in not scoring. The left wing was far the best part of the forwards, Norton and Gray playing well together; the former especially deserves mention, but he must learn to put more "go" into his play. Team:—

Guy's.—F. M. V. Smith (goal); W. M. Robson, A. Pearson (backs); R. W. B. Hall, H. B. German, D. G. Greenfield (halves); P. W. L. Camps, A. Rust, W. O. Roberts, L. Norton, A. C. H. Gray (forwards).

Guy's Hospital Lawn Tennis Club.

LIST OF MATCHES IN 1898.

May	14	Hornsey ...	Home ...	Lost 3–6.
	19	Connaught	Chingford ...	Rain prevented
	21	Weighton...	Home ...	Rain prevented
	28	Wanstead...	Wanstead ...	Wanstead Scrhd.
	30	Past v. Prsnt.	Home ...	Lost 6–8.
	31	Albemarle	Home ...	Rain prevented
June	4	Kent L.T.C.	Home ...	Kent scratched
	9	Hornsey ...	Hornsey ...	Lost 3–6.
	16	Farnley ...	Home ...	Won 4–3.
	18	Connaught	Chingford ...	Lost 1–5.
	20	St. Bart.'s Hos. H.C.T.	Chiswick ...	Lost 2–10
	25	Dr. Good-hall's team	Home ...	Rain prevented
	29	The Staff ...	Home ...	Won 7–3.
	30	Blackheath	Blackheath ...	Scratched by Blackheath.
July	2	Weighton...	Annerley ...	Lost 1–8.
	7	Kent L.T.C.	Blackheath ...	Lost 2–6.
	13	Chiswick ...	Chiswick ...	Scratched.
	20	Albemarle	Beckenham ...	Won 3–2.
	27	Chiswick ... Park	Home ...	Scratched by Chiswick.
	28	Harold ...	S. Norwood ...	Unfinished.

Won 3; lost 7.; abandoned 10.

From the above list it will be seen that there is room for improvement in the hospital team. There was a very conspicuous absence of training in the members of the team that may account for some of the displays given. The question of the advisability of laying a gravel court at Honor Oak is being considered. We should like some opinions, especially from residents, on the matter.

United Hospitals' Hare and Hounds.

The opening run of the United Hospitals' Hare and Hounds was held at Chingford on Saturday last. There was a fair muster of men, and we started from the "Royal Forest" Hotel (our headquarters) and ran over the five mile course. The only discomfort that we had to endure was the great hardness of the ground, but this must be already remedied by the frequent rains. So any new men that have done any running at all should not miss the opportunity of running over such fine country as we have at Chingford, especially suited as it is to this sport, where every variety of ground is obtainable. The train to catch is the 2.32 p.m. from Liverpool Street to Chingford, on Saturdays.

The Hospital "Blue."

A "Blues" Committee was held on October 5th, and the following "Blues" elected:—

Cricket.—M. C. Wetherell, H. P. Wiltshire, A. E. Causton, and G. T. Willan.

Lawn Tennis Club.—H. R. Lacey, F. G. Cross; and "Half-Blues," E. L. R. Kelsey, M. C. Wetherell, and G. T. Willan.

No recommendations from the Secretaries of the Bicycle Club and Swimming Club were received.

It was unanimously agreed to grant three "Half-Blues" to the Cross Country Club in the event of there being an Inter-Hospital competition.

J. H. BRYANT, Hon. Sec.

Birth.

LIPSCOMB.—On October 15th, at Starcross, Devon, the wife of Edgar R. S. Lipscomb, L.R.C.P. Lond., M.R.C.S., L.S.A., of a son.

Marriage.

TURNER—BARRY.—On October 5th, at St. Stephen's, South Dulwich, by the Rev. R. C. Joynt, M.A., assisted by the Rev. F. E. White, M.A., Vicar of the Parish, John Sidney Turner, M.R.C.S., F.L.S., of Stanton, Anerley, S.E., to Emily Jane, only daughter of Mrs. Barry, of Dilkhoosha, Sydenham Hill, S.E., and of the late Dr. John Boyle Barry, of Calcutta.

Ed.—H. L. E.

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Calendar of Coming Events.

November.

Sat. 5.—Messrs. Lucas and Lane's take-in; Drs., C. T. Hilton and G. S. Simpson; Cl., H. E. C. Fox, 1.15 p.m., Clinical lecture by Dr. Pye-Smith.
G.H.R.F.C. I., Rosslyn Park, home.
II., ditto away.
G.H.A.F.C., I., St. Leonards, away.

Tues. 8.—Meeting of the Dental Society at 4.30 p.m.

Wed. 9.—1.30 p.m., Clinical lecture by Mr. Davies-Colley.
Messrs. Golding-Bird and Dunn's take in; Drs., E. Stott and T. J. Wright; Cl., F. E. Walker.
G.H.A.F.C. II., St. George's Hospital, home.

Thur. 10.—G.H.M.P.U., Missionary Meeting.
Primary Fellowship Exam.
Exam. for L.D.S. Eng.

Fri. 11.—Nurses' Choral Society, practice 5.30 p.m.

Sat. 12.—1.15 p.m., Clinical lecture by Dr. Pye-Smith.
G.H.R.F.C., I., Croydon, away.
II., ditto home.
G.H.A.F.C., I., Weybridge, away.
II., Eversleigh, home.
G.H.P.P.S., Exhibition of Lantern Slides by Dr. H. W. Pigeon.
Last day for applying to Registrar for Form of Entry for B.S. Lond.

Wed. 16.—1.30 p.m., Clinical lecture by Mr. Howse,
Messrs. Howse and Jacobson's take-in; Drs., H. S. A. Alder and A. E. Cawston; Cl., K. B. Alexander.
G.H.R.F.C., I., East Sheen, away.
G.H.A.F.C., I., Eastbourne, away.

Thur. 17.—G.H.M.P.U., Address by Rev. T. H. Darlow, M.A.

Sat. 19.—1.15 p.m., Clinical Lecture by Dr. Hale-White.
G.H.R.F.C., I., Bedford, away.
II., Beckenham, away.
G.H.A.F.C., I., Idlers, home.
II., Crystal Palace E. S., away.

Guy's Hospital Gazette,

NOVEMBER 5, 1898.

Anæmia, Leuchæmia and Hodgkins' Disease.

CLINICAL LECTURE BY Dr. PYE-SMITH.
15th October, 1898.

Gentlemen,—We have now in the clinical wards a case of Leuchæmia splenica, and another of Anæmia lymphatica et splenica, which we may profitably put alongside of it.

I.—The first case is that of a man, 45 years of age, looking somewhat florid and not unhealthy, who has been ill only for a few months, after influenza. (Many patients come to you after influenza; no doubt it has its sequelæ, but certainly not the condition of which I am speaking.) Well, this man found he had a pain in his side, and on feeling it he discovered there was a lump. When we came to examine him, its condition answered to all the indications of an enlarged spleen. The shape of the spleen is characteristic and you can almost always feel the notch in its anterior border. Beginning in the left hypochondrium it sometimes, as it enlarges, descends straight into the loins, but more often it describes a semicircle, of which the centre is a little above the umbilicus. It is tethered by the splenic vessels, so does not move straight downwards but towards the umbilicus, and thence still downwards and towards the right. In extreme cases you can feel the top of the spleen below the ribs, its greater curvature fills up the left inguinal region, and its lower end comes right over into the right groin, so that an enlarged spleen may fill nearly half the abdomen.* (Here the lecturer represented diagramatically on the blackboard the successive outlines of an enlarging spleen). The fold of peritoneum, running from the splenic flexure of the colon to the parieties, and called *sustentaculum lienis*, may

* See the figures in Dr. Fagge's admirable paper in our *Reports* for 1868. Third Series. Vol. xix., p. 207.

when well developed help to tilt the spleen forward, but I have no doubt that it is the attachment of the vessels which chiefly determines the direction I have described.

These enormous spleens are seen with the disease we are speaking of, namely, leuchæmia, and occasionally as the result of malaria, very rarely in other cases. I saw in the dead-house only a week ago a case of Dr. Frederick Taylor's of a boy who died from an unusual form of cirrhosis, not due to drink, and which has been described by French physicians as confined to children. In this case the boy who had been long in the wards, had jaundice, ascites, and a hob-nail liver, with a very large spleen.*

Our patient complained of pain over the spleen, and this pain, doubtless, is due to inflammation caused by friction. When the spleen or other organs have become very heavy they produce more friction, and so get a little sore, just as the heel chafes if you have a tight boot. First, then, the patient complains of pain in his side, like pleurisy, and you can sometimes hear a peritoneal rub. In this case the man is not pale to look at. Pallor is a symptom characteristic of anæmia, but it is not equal in degree in every case. I am afraid that you will see this man become markedly anæmic, but at present his face is somewhat florid. In most cases, if you look at the tongue and palate and nails—these are the parts to watch—the palate has a sickly, yellow colour, the gums and tongue are pale, and the nails have lost their pink hue and have assumed a characteristic yellow.

Here it was only when we examined the blood that we were certain of the anæmia. The red corpuscles were considerably under the normal 5,000,000. We also found he had a large increase of white corpuscles, not a transient increase as after a meal, or a slight increase as in typhoid fever (*leucocytosis*). Instead of being 1 in 200, or 1 in 100, or even 1 in 50, the proportion of white corpuscles comes out about 1 in 20.

Remember, first, with regard to this leuchæmia, that it is a kind of anæmia. That I think, was not quite sufficiently estimated by Virchow who discovered the disease. In leuchæmia, not only an increase of the white, but a diminution of the red corpuscles takes place.

II.—The second case which I mention to-day is that of a lad of seventeen, a dark Jewish youth of German parentage. He is thin and pale, and he has enlarged glands in his neck, and a somewhat enlarged spleen. His blood shows no increase of white corpuscles, but a diminution of the red. His case, then, we call *Anæmia lymphatica*. If we find the spleen continues to increase, we may call it Anæmia splenica et lymphatica. This disease was first described by Dr. Hodgkin, at this hospital, and has since been called Hodgkin's disease. But if you read Dr. Hodgkin's original paper (in the Medico-chirurgical Transactions for 1832), you will see that his observations were imperfect. Beginnings are always imperfect, and he included some cases which are now called malignant. The accurate limitation and comprehensive account of the clinical features of the disease was due to Dr. Wilks more than anybody else. In the volume of the Guy's Reports for 1865, he added what was wanting in Dr. Hodgkin's description, and reported sixteen cases.

Hodgkin's disease, then, is a form of, generally, pure anæmia, but occasionally of leuchæmia along with it, accompanied by enlargement of the lymphatic glands. They are distinct from inflammatory enlargement, because they never suppurate; and they are different from tubercle, because they are never caseous, and do not contain tubercle-bacilli. Lastly, they differ from sarcoma histologically.

III.—It so happens that this morning I saw a case of the closely-allied disease, which I spoke of just now as *Anæmia splenica*. The patient is a girl of sixteen, brought up from Yorkshire, and the doctor who came with her tells me that she is the eldest of the family, that her father and mother and the rest of the family are healthy. She was herself a healthy girl, active, intelligent, and taking plenty of exercise, as English girls do. But about Easter she began to complain of short breath when she ran, or exercised herself more than usual; she got tired with walking or any amusement she was engaged in, and had to go in and lie down. Still she was taking her food well, slept well, and was not losing flesh; but soon after she began to get decidedly pale. Menstruation was not very regular, as it often is not for the first two or three years. It was not profuse enough to account for her pallor, and was never absent. I found an obviously enlarged spleen, with the descending colon behind it, and a notch in its inner margin, dull on percussion, and in fact with all the characteristics of an enlarged spleen. She had a little pain over it.

I pricked her finger, and found there was no increase of leucocytes, but considerable diminution of the red discs. The heart was healthy,

* See Dr. Taylor's paper in our *Reports* for 1896, vol. lii., p. 45.

but there was a pulmonary murmur at the base, as you often have in these cases. The urine was not particularly dark, but it gave a rather strong reaction with hydrochloric acid and heat. —not the purplish blue colour given by indican, but a dark-reddish colour due probably to the presence of a chromogen derived from scatol. As a matter of experience, I find this reaction in many abdominal cases, particularly in malignant disease of the stomach or colon, and also in many cases of severe anæmia.

These are three cases, then, which I have brought before you—a man of forty-five, with leuchæmia or leuchæmia splenica, that was discovered by Virchow; a lad of seventeen with Anæmia lymphatica, that was discovered by Hodgkin; and a girl with Anæmia splenica, more rare than the others.

And now to trace the subject backward analytically—which is the most useful method for a clinical lecture—we will start with the condition of anæmia, and then consider the prognosis and treatment that belong to each kind. To make myself clearer I have written up a rough classification of the different kinds of anæmia:—

(1) The simplest of all is clearly *anæmia from hæmorrhage*. If a man by traumatic hæmorrhage has lost much blood, we may call his condition one of physiological anæmia. There is obviously no distinction between that and the anæmia of a woman after flooding; she is blanched, just as a man is from a wound. The same anæmia results from bleeding piles. In most cases this troublesome complaint is not a serious one. But if a man loses a little blood every day at stool, it slowly tells upon him, and he gradually becomes anæmic. Always think of that when you have to do with pale men. In men the most frequent sources of hæmorrhage is bleeding hæmorrhoids, and in women, metrorrhagia. There are people who suffer from anæmia due to bleeding of the nose, which is very common among schoolboys and does them no harm; but in elderly people it usually indicates a bad arterial condition, and is often associated with granular kidneys, gout and apoplexy.

What are the clinical features of this physiological anæmia? There is diminution of the red corpuscles and of the hæmoglobin, and of the specific gravity of the blood, the amount lost being very rapidly supplied by absorption of lymph. There is generally a quick pulse and feeble. This may lead to faintness, or if the action of the heart is very weak to actual syncope. Another symptom is dyspnœa. The dyspnœa depends on the fact that there is diminution of the hæmoglobin, because we do not really breathe with our lungs; the lungs only let the oxygen in, but the real breathing takes place in the tissues, in the muscles and glands and brain which want oxygen, and it is only as the oxygen reaches them that they can be said to breathe. And the oxygen supplied to them must reach them as oxy-hæmoglobin. If you have not enough hæmoglobin, the tissues cannot get enough oxygen. You see a person in extreme dyspnœa, he has perfectly healthy lungs and heart, and is breathing perfectly good air; the difficulty is that the air which is ventilating the lungs is not being carried to his tissues for want of hæmoglobin.

Hæmorrhage is soon recovered from. There is nothing more remarkable than the rapidity with which fresh hæmoglobin and corpuscles are produced, and the specific gravity of the blood repaired. Formerly a man with pneumonia was bled, losing a pint or more perhaps. It was not a good practice, but it did not kill him: perhaps it was rather a pity, on the whole, that it did not, for then the extravagant use of a valuable remedy would not first have done much harm and secondly have led to its complete abandonment.

With regard to hæmorrhage, there is nothing on which you can reassure people more than in its treatment. A man's nose is bleeding and he sends for the doctor to come and cure it. Well, it is not a dangerous thing. He feels faintish and he has to lie down, and the thing stops of itself. And so with most other hæmorrhages, such as hæmatemesis or hæmoptysis. If the patient dies, it is generally from choking, but dying from loss of blood, by syncope, is a rare thing; it does occur, but not so frequently as one would expect. Moreover, hæmorrhage, if you can stop it, is very readily repaired, and not a thing to dread nearly so much as patients suppose. As a rule hæmorrhage is far more serious for what it denotes than for its own effect.

(1*a*.) Then we come to symptomatic anæmia which is closely allied to what we have spoken of already, though it is not the result of loss of blood. If a man is continually losing a quantity of pus, he is not losing hæmoglobin, but leucocytes and albumen, and gradually he gets pale. You are all familiar with the pallid aspect of people with a history of long suppuration. And so a woman who is suckling her child too long, or perhaps has twins, is losing a great deal of blood, for milk is formed from the blood, and the result is that she suffers and becomes pale.

If you examine her blood, you find the hæmoglobin and the corpuscles, and the albumen and the specific gravity diminished. Again, diarrhœa and dysentery will make people pale, and other chronic discharges in the same way.

(2.) Deficient supply of food causes anæmia. A patient suffers from *starvation* due to stricture of the œsophagus, and becomes pale. In a case of gastric ulcer the patient is often extremely anæmic when hæmatemesis has been slight or absent, and even dyspeptics will become pale because they do not get the amount of nourishment they require. Anæmia from deficient supply is as physiological as anæmia from excessive loss.

(3.) Next we come to secondary *toxic* anæmia due to poisoning with lead or mercury, and also perhaps to animal poisons like the foul air of crowded and unventilated houses.

(4.) Another kind of secondary anæmia is *pathological malaria*. No one shows more marked anæmia than many who have lived in China, or India, and had a succession of attacks from malarial fever. The hæmatozoon destroys the red blood discs, and then hæmoglobin with them. In the same category we may conveniently put other fevers, such as enterica and rheumatism, which of all such conditions, perhaps, blanches a man quickest. It is most remarkable to see a previously ruddy youth lose his colour and turn white after he has had rheumatic fever for a few days, and when he is convalescent. Among chronic diseases, cancer, syphilis, Bright's disease, phthisis, heart disease —all of these have anæmia as one of their symptoms. So much for traumatic and physiological, toxic, and secondary pathological anæmia.

(5.) And now we come to those cases which are more difficult and obscure. First, I should put by itself *chlorosis*. Dr. Bristowe, in his thoughtful book on medicine, put together chlorosis and the graver kinds of anæmia, because both are primary (idiopathic, that is without known cause) not symptomatic of some other condition. Well, that is logical, but we do not often find that logical classifications are of much use in medicine. And to put together chlorosis, a disease which never kills anybody and which is curable, along with forms of anæmia which kill every patient and is all but incurable, is surely inconvenient. Chlorosis stands by itself. Its characteristics you are all familiar with—the olive-green pallor, the breathlessness, the pulse often weak but sometimes hard, the short, loud, first sound of the heart, which approaches a second sound in character, often an arterial murmur, a pulmonary (or dextro-sigmoid) murmur, and a venous hum, with considerable muscular weakness. Along with these there are two other characteristics, namely, more or less complete *amenorrhœa* and *constipation*. These symptoms occurring in young women are quite characteristic of chlorosis, and the fact that it occurs only in the female sex separates it from all the other forms of anæmia. Chlorosis, then, we regard as a disease by itself. There is only slight diminution of the blood corpuscles in number, but the amount of hæmoglobin is very deficient; albumen also is diminished, and the specific gravity of the blood is lower than in health. The prognosis, as you know, is good, and the treatment is by iron; the only error is in giving too little. Dried sulphate of iron or Blaud's pills, are generally given, but it does not matter what form they take it in, so long as they take enough. And along with the iron remember to give them aloes or some other appropriate laxative; this treatment, with fresh air and alternate lying down and walking out, will cure all cases of chlorosis. But a girl once chlorotic must be watched carefully. As soon as she shows signs of anæmia she must be given iron again in full doses, and taken away, if possible, from her class-room or any sedentary work.

(6.) Putting chlorosis upon one side, there remain the most severe forms of anæmia, *anæmia gravis*, not always "pernicious," not always "progressive," but grave, and also primary, idiopathic, essential.

Now among these cases of grave and primary anæmia, we can distinguish three, if not four, well-marked varieties.

(6*a*.) The first is known as leuchæmia, and of this our patient in John ward is a good example. The red corpuscles are markedly diminished in number, the hæmoglobin only moderately, so the discs are sometimes not pale, as in chlorosis, but dark. The special characters of this grave essential anæmia are, first, that the leucocytes are greatly increased in number, not only compared with the red discs but absolutely; and, secondly, that the spleen is greatly enlarged. This disease was discovered by Virchow, in Berlin, who gave it the name leuchæmia (leukämie). Bennet, in Edinburgh, called it a leucocythæmia; and Piorry, in Paris, had previously described a case as inflammation of the blood.

(6*b*.) Closely allied with the common form (*leuchæmia splenica*) we have rare cases where the spleen is not enlarged, but the lymphatic glands are. These cases are very rare, but

they do exist, and may be best called *leuchæmia lymphatica*.

(6*c*.) Then there are other rare cases of leuchæmia, in which neither the spleen is enlarged nor the lymph-glands, although there is marked diminution of the red blood-discs and marked increase of leucocytes. But another lymphatic organ is diseased, namely, the red marrow of bone. There is hypertrophy of the cancellous tissue of the ends of the long bones, of the vertebral-centra or of the sternum, where we find the red marrow—not a variety of adipose tissue like the yellow marrow of the shafts of bones, but the same leucocytogenic tissue as is found in the spleen and lymph glands, in Peyer's patches, and the solitary follicles of the stomach, tongue and intestines and the thymus. This form of anæmia is called *leuchæmia myelogenica*, discovered by Neumann.

(7*a*.) Next comes the cases of anæmia (without leuchæmia) with enlarged glands; *anæmia lymphatica*, or Hodgkin's disease, or as it is rather absurdly called in Germany "pseudo-leuchæmia." As in our second case, the spleen is often moderately enlarged.

(7*b*.) But in a rarer form of anæmia, the spleen alone is enlarged (our third case). Anæmia splenica, with no leuchæmia and no enlargement of lymph glands (see a case recorded in Pathological Transactions for 1870, vol. xxi., p. 390, and another in vol. xxvi., p. 199).

(8.) Lastly, there are the cases of extreme anæmia, which Addison described many years ago (1855) which, as he said, do not follow loss of blood, are not produced by lead, are not secondary to malaria or grandular enlargement, or cancer or any other known cause and have nothing to do with chlorosis or amenorrhœa. Moreover the spleen is not enlarged nor the lymph-glands nor the marrow, and there is no increase of the white corpuscles of the blood, while the red discs are greatly diminished—from 5,000,000 to 1,000,000, 500,000 and even below 300,000, in the cubic millimetre. This he described as *idiopathic anæmia*, because it was primary not symptomatic and unassociated with organic lesions. The name, I think, is a good name, but it is sometimes called "Addison's anæmia," and about fifteen years after he wrote the same condition was observed in Switzerland by Quincke, at Basle by Immermann, and at Zurich by Lebert and Biermer, and the last named writer named it "progressive pernicious anæmia." Pernicious anæmia is the name it generally goes by, only remember that it is very remittent and not always fatal, but that it is always idiopathic or primary.*

Now what are the characteristics of this disease? There is diminution of blood corpuscles as well as of hæmoglobin, it has all the other symptoms of grave anæmia, and it agrees with the others I have put in this last group (6 and 7) in two important symptoms which are absent in chlorosis or in all the symptomatic or secondary forms of anæmia. The one symptom is irregular pyrexia, the other symptom is internal hæmorrhage. Other kinds of anæmia are often produced by hæmorrhage, but they do not lead to it; and the most chlorotic girl does not bleed in the nose or internal organs. But these I call grave (leuchæmia, Hodgkin's disease, splenic anæmia, and Addison's idiopathic or pernicious anæmia), all lead to hæmorrhage. In the skin and the retina during life, and sometimes in the brain or around the pancreas and kidneys, after death, may be seen effused blood. Or there may be obstinate epistaxis, hæmaturia, hæmatemesis, or melæna. This hæmorrhage, then, is a very important point.

Moreover these grave forms of anæmia agree together (and differ from chlorosis and secondary anæmia) in the red corpuscles being greatly diminished in number, and in the urine being usually dark.

But Addison's form of anæmia differs from all others in the fact that the tissues show no appreciable wasting. Generally in anæmia there is more or less wasting, but in Addison's cases patients often keep their weight up to the time of death. The last case I saw was a man, about forty-five, at Norwood, whom I saw last winter, being called in, as often happens, in the last stage of the disease. He was a tall man weighing nearly thirteen stone, well made, temperate, active until this terrible disease came upon him. He was so breathless that he could not get out of bed into his chair; he was very pale; he had hæmorrhage into one retina, and pyrexia, but he had not lost flesh at all; in fact his wife thought he must be getting better because he had put on a few pounds during the last month or two. But he died shortly after I saw him.

In these cases you find after death much fat not only under the skin, but about the kidneys and heart—dark yellow fat. You also find—and that again belongs to all the severe forms of anæmia—mottled fatty degeneration of the myocardium, pale and sometimes dilated heart, and a fatty liver.

* Virchow's Archiv. for 1875.

Also as Quincke first observed, and as Dr. Hunter has lately confirmed, there is great increase of iron in the liver, so that one can readily produce the Prussian blue reaction in the deadhouse.

This is probably related to the large amount of pigment in the urine, so that we may perhaps adopt the hypothesis that in chlorosis and secondary anæmia there is diminished formation, and in grave anæmia increased destruction of hæmoglobin.

I have drawn on the black board this sketch of red corpuscles in health. In idiopathic anæmia you occasionally find nucleated corpuscles like those of the embryo and like those sometimes found in the cancellous tissue of bone. There are also to be seen minute corpuscles, often with excess of hæmoglobin, called microcytes. Pœcilocytosis is a term applied by Eichhorst to a condition in which some of the corpuscles are irregular in shape. In anæmias you may find also unusually large but unnucleated corpuscles, megalocytes. The crenated corpuscle, as you know, is not morbid, but is produced by exosmosis after the blood is drawn.

Then for the white corpuscles. Beside the finely granulated nucleated leucocyte which is most frequent in health, we find in leuchæmia splenica others called myelocytes, larger and like the corpuscles found in marrow, with coarse granules, and a twisted or tripartite nucleus. Another leucocyte has a large nucleus and little, almost clear plasma around it; the lymphocyte which you find in the lymph-glands. These last are more common in Hodgkin's disease, and the myelocytes are most characteristic of the splenic form of anæmia. In both forms you may find these platelets which occur in health as well as in disease. Some of the leucocytes react best to "acid" stains like eosin, and picrate of ammonia, others to "basic" dyes like methyl-violet and fuchsin.

We have only a few minutes left to speak of the prognosis and the treatment of these grave forms of anæmia, so that you will already have inferred that the prognosis is bad, and the treatment unsatisfactory. The prognosis in our first group of anæmia depends entirely upon your power of stopping the hæmorrhage or other exhausting discharges; in our second group of symptomatic anæmia, it depends upon your power of curing the primary disease; in chlorosis it depends upon the amount of iron you can get your patient to swallow. But in the last group we have no effectual means of dealing with it. Iron is no use at all, so do not waste your iron on these patients, nor should you give them quinine; it is too valuable a drug to be thrown away. Nor should you give iodide of potassium "as an absorbent," it melts gummata away but not an enlarged spleen or lymph-glands, and like all powerful remedies, when it does not do good it does harm. It is always depressing, and takes the appetite away, and makes your patient miserable. Lastly, phosphorus is of very doubtful benefit in any disease, and if not inert it probably is injurious. Phosphorus produces fatty degeneration of the heart and liver, and therefore if you give phosphorus in grave anæmia and your patient dies, the degeneration of these organs may be uncharitably attributed to the remedy instead of to the disease.

There is only one drug that I have seen do good, and that is arsenic. It was introduced by Dr. Bramwell, of Edinburgh. I must admit that most often it fails, but the few cases in which my patients recovered were after a course of arsenic. A patient with Addison's idiopathic anæmia and retinal hæmorrhage, lost all his symptoms under arsenic. You will find his case in the Guy's Hospital Reports for the year 1883, vol. xli., p. 277, and he was well when I last heard of him five or six years ago and ten years after his recovery. See also pp. 304–5 for cases of recovery from idiopathic ("pernicious") anæmia. I think you should give arsenic in as large doses as you can. A patient of Dr. Taylor's, a policeman who had leuchæmia splenica, in the clinical wards a few years ago, was very much benefited not only by arsenic but by inhalation of oxygen. The remarks apply to prognosis and treatment of all the grave anæmias in our final group (6, 7 & 8).

Chronic Disease of the Knee-Joint.

CLINICAL LECTURE BY MR. DAVIES-COLLEY,

October 12th, 1898.

GENTLEMEN,—During the present year, exclusive of other affections of the knee-joint for which I have performed operations, I have operated upon a dozen cases of Chronic Disease of the Knee-joint, of which ten were cases of tuberculosis.

It is said that tubercular disease of the knee-joint most frequently begins in the bone, in children, and in the synovial membrane in adults. My cases here do not altogether bear out that statement.

Five of these ten began in the bone, one with disease of the patella, and the four others with

tubercular deposit in the tibia; and the remaining five began with disease in the synovial membrane. In the two youngest patients, aged four and five, the synovial membrane alone was affected.

I will read the report of the last case upon which I operated, and call your attention to certain peculiarities in the case, and then I will speak more generally upon the diagnosis of tubercular disease of the knee. A boy of the age of ten came under my care here on the 25th of November, 1897. The history given is as follows: "About a year ago his knee hurt him so much that he could hardly stand on it; his mother rubbed it with oils, and this seemed to ease it. For some time after this it was swollen, but did not hurt at all. One day he fell and knocked it, giving himself great pain. It then began to swell considerably, and about four months ago he went to a doctor who gave him some oils to rub it with. The next two weeks he painted it with iodine, and, the second time, told him it was a hospital case. A slight lump had now appeared on the outer side of the knee." When he came in, the knee was said to be much swollen and softish. There was a sinus on the outer side of the joint. The movement was somewhat impaired. He could flex it without pain to a right-angle; after that there was pain; there was no pain on extension, but it could not be extended completely.

Well, that looks just like an ordinary case of tubercular disease in the synovial membrane of the knee-joint. But the case came under my care about two months before he entered the hospital, and there were some points about it which puzzled me much at the time, and made the diagnosis uncertain. He was then quite a healthy-looking rosy boy, well nourished, with apparently very little the matter with him. His knee-joint was full of fluid, and, as far as I could make out, there was no thickening of the synovial membrane at all. It was an inch in circumference more than the other. The patient gave the history that he had struck it at football a year before, and that it had been somewhat painful ever since.

I treated it then for a month with a cotton wool bandage as a case of chronic synovitis. I told the dressers to put on six layers of cotton wool, and then bind it very firmly with starch bandages, so that when they dried the leg might become perfectly stiff and firm. In this way you obtain a very light bandage and a sort of splint to support the leg, and thereby the joint is also kept from the effect of cold, and in an even temperature and at an even pressure. That is a form of splint I learned from Mr. Bank, of Liverpool, who recommended it about fifteen years ago, and I find it successful in these cases of chronic effusion into the knee-joint. The splint is a very light one, and does not absolutely immobilise the knee, though very nearly so; and the patient is able to get about and do his work.

However, this form of splint did not seem to do the boy any good. When I took it off there was rather less swelling, but the skin had begun to redden over the outer side of the boy's patella, and an abscess soon formed and burst, and when he came into the hospital two months after he first came under my notice, there was a discharging sinus, and the synovial membrane was decidedly thickened. My theory of the case is as follows:—When the boy first came under my care, he was suffering from tubercular osteitis of his patella, and the effusion into his knee-joint was then simply inflammatory. Subsequently the tubercular mischief spread to the synovial membrane and produced the characteristic swelling of the "pulpy" knee.

I had another case under my care this year where the same kind of liquid effusion was the first sign of tubercular disease near a joint.

I want to call your attention to this peculiar sequence of events. Sometimes when tubercular disease begins in the bone, the first evidence of trouble in the knee-joint is not the pulpy condition, but an effusion of synovia into the joint. As the inflammation set up by the tubercular deposit approaches the surface of the bone, it sets up inflammation, which only produces effusion into the joint, and not thickening. But as the disease gets more completely to the surface, when not only the inflammatory deposit but the tubercular matter reaches the surface of the bone and spreads to the joint, then you have the mixture of tubercular deposit and inflammatory matter around it, which causes the thickening of the synovial capsule, so characteristic of tubercular disease.

To proceed with the case of the boy, I decided to operate upon his knee, and on cutting across his patella I found that one half of the section was caseous, infiltrated with opaque yellow material, and evidently in the condition of tubercular osteitis. The cartilage of the patella over this area was quite loose from the posterior surface of the bone. It was pretty evident, therefore, that as the result of a blow on his patella a tubercular patch had formed, which had gradually spread to the surface of the bone and set up tubercular inflammation in the synovial membrane.

I excised the knee-joint and removed the patella, and when I dressed the limb for the first time three weeks afterwards, I found that all had healed by primary union. Even then, with the splint, the boy could lift his leg quite well off the bed. He went out very soon, in about six weeks. But unfortunately the disease recurred, and the sinus re-opened, and the good union he had previously got between the tibia and femur became loose, so that about a week ago we found he had got a certain amount of movement, and there was a sinus running between the bones. I had to re-open the old transverse incision and bend the knee so as to expose the surfaces, and I found that the epiphysial lines on both sides were laid bare on account of the carious destruction of the epiphyses of the femur and tibia, and I had to scoop away all diseased tissue I could find. I thought it was desirable to put in two big screws backwards and downwards, right through the lower part of the femur and the upper part of the tibia, so as if possible to procure bony union. At present the patient is doing well, but I am afraid that the case may ultimately become one for amputation if the tubercular disease recurs.

I will not read you all the other cases, but I will speak now upon some points in the diagnosis of tubercular disease.

In the first place, when the boy first came to me the joint was distended with fluid, and there was no thickening of the synovial membrane. That is rather a curious thing in a child. It is not at all an uncommon thing to get synovitis with effusion in a grown-up person; it very often follows some blow or strain of the joint; it also occurs as the result of gonorrheal rheumatism, sometimes also in syphilis in grown-up people, but it is not a common thing in children. Tubercular disease shown by thickening of the synovial membrane is very common, but distension with fluid is not a common thing as a chronic affection, though I have seen it occasionally as the result of hereditary syphilis. You will sometimes see a chronic effusion into both knee-joints without much pain or thickening, which is curable by iodide of potassium. In such cases, however, you will usually find some other evidence of the presence of hereditary syphilis. I have seen it also as the result of tubercular disease in this way; sometimes you will have a child brought to you with a swollen knee, but no thickening of the soft parts. The knee is distended with fluid and the child is very white and thin. He has probably got tubercular disease, but has not sufficient strength to throw out organised inflammatory material to produce the thickening of the capsule which is commonly found in tubercular disease. I find that Continental observers have called this condition of things empyema tuberculosum. It is distension of the synovial membrane of the knee-joint with thin pus, and it generally means that the child is in bad health and that excision is useless. In such a case probably amputation is the only treatment likely to be of service to the patient.

And now I want to call your attention to the diagnosis of those ordinary cases of tubercular disease in which thickening of the synovial membrane is present, and to mention various diseases which you have to distinguish from them. In children by far the majority of cases of chronic knee trouble, where there is a soft thickening of the synovial membrane, without fluid, are due to tubercular disease, but there are a few cases which you have sometimes brought before your notice in which symptoms like these are present, and yet there is no tubercular disease. For instance, you may have a tumour in one of the bones that form the knee-joint which will form a soft swelling of the knee, such as a myeloid tumour or a periosteal sarcoma, and in some cases you will have very great difficulty in being sure whether it is a tumour or tubercular disease. In making a diagnosis I would be guided in this way: if it is a tumour you will probably find one bone much more affected than the other, and if it is a periosteal sarcoma you will very likely find there is a pulsation in the soft material deposited in the sub-periosteal tissue. If it is a myeloid tumour you can often feel a thin layer of bone over some soft material, and you can dint this thin layer with the pressure of the thumb, in much the same way as you can press in the occipital bone when a rickety baby is suffering from cranial tabes.

Another condition which you may mistake for this soft thickening of the synovial membrane is syphilitic trouble in the parts close to the knee-joint. The part most likely to be attached is the lower end of the diaphysis of the femur. In such a case there will be enlargement of the bone close to the epiphysial line, with a certain amount of irritation of the neighbouring joint—a parepiphysitis as it is called.

I saw a case on Monday which seemed to be of this kind. A child sixteen months old, who had been ill all its life, was brought to me with some swelling of the knee, and evidently a good deal of pain about it. It was a question whether it was a case of tubercular disease or something

else. I thought that on the whole it would probably turn out to be a syphilitic disease of this kind. There was not very much swelling round the patella; the thickening was above the condyles and on the lower part of the shaft of the femur. I ordered the child some grey powder, and I hope we shall find that the swelling soon will go away.

Another kind of swollen knee which may closely imitate tubercular disease in children is that produced by hæmorrhage into the knee-joint in boys who are "bleeders." When the fluid part of the blood has been absorbed a thickening may be left in the joint very like that of pulpy synovial membrane.

In the case of adults, the diagnosis of tubercular disease may be exceedingly difficult. Chronic tubercular disease of the knee is common in adults, but it is not so common relatively to other affections as it is in children. Besides the tumours already mentioned there are many other affections which may produce a soft but not fluid swelling of the knee. Osteo-arthritis is an affection which in some cases bears the greatest resemblance to tubercular disease. The patient is apt to be thin and pale, and there may be a great deal of thickening of the synovial membrane, with very little effusion of fluid into the joint. The chief points upon which you will rely are the presence of osteophytic lips at the side of the condyles, and creaking when the joint is moved. But even with all this assistance you will find it is very difficult sometimes to diagnose correctly.

Then again, Charcot's disease may be confused with tuberculosis. There is often a good deal of soft thickening about the joint when the acuteness of the original attack has passed off. But the suddenness of the first attack, the absence of pain, the deformity and looseness of the joint, with the presence of various signs of locomotor ataxia, will generally make a correct diagnosis easy.

Another class of diseases which are very difficult to diagnose from tubercular disease of the knee-joint are the tertiary syphilitic. A soft node may form just above the condyles of the femur, underneath the suprapatellar synovial pouch. Or there may be some gummatous mass in the capsule of the joint, or close to it, especially in the lower part of the quadriceps tendon. With this there will be also a general thickening of the capsule and the synovial membrane of the knee-joint around. So that if you get a fairly healthy-looking person with swelling of the knee, and with large nodules which can be felt especially in the upper part of the knee, separate, firmish nodules, you should look out for some syphilitic trouble, and you will very likely find some skin affection or other indication of tertiary disease. I excised a knee for that condition two or three years ago, and could not get any history of syphilis, but I found that the patient had got scars of a syphilitic ulcer on the skin of the other thigh, and when I operated upon him I found what was evidently gummatous tissue around the joint.

This year also I operated in a case of a healthy-looking man, about thirty years of age, who had had trouble in his knee following a blow with a hammer, for some three or four years. He told us he had syphilis, and that he was always better when he was taking iodide of potassium. I thought, however, that as he had an open sinus leading into the joint, we ought to operate, and when we excised his knee-joint we found there was a great deal of thickening of the lower end of the quadriceps tendon, a great gumma in fact.

You will sometimes also see cases in which the gumma, instead of affecting the ligaments of the joint, will attack the cartilage and the bone underneath the cartilage. Cases of the kind that I have seen have been characterised by enormous swelling of the knee-joint, usually in people between thirty and forty, without very much pain. I have operated upon two sailors for this condition, and, in both cases I found this gummatous destruction of the cartilage and the bone beneath, accompanied by evidence of changes similar to those of osteo-arthritis. This condition has been described by Virchow as syphilitic chondro-arthritis.

Then there are a few things I should like to mention with regard to the other symptoms of tubercular and chronic disease. In the first place there is a certain amount of stiffness, partly from spasm of the muscle and changes in the ligaments, and partly from intra-articular adhesion, and you also get wasting of the thigh muscles from disuse of the part; also you get bending and dislocation backwards and eversion of the leg in these cases.

Now, why do you get bending of the knee in chronic diseases? Some people will say, "The bending is due to the fact that the capsule can be most distended when the knee is bent." That may be one reason, but I do not think it is the sole reason from this fact; I have seen a patient, after a wound of the knee from a hatchet, with his inflamed knee very much bent, although there was no distension of the capsule, because the fluid escaped from the wound as soon as it was formed.

And then sometimes it is given as a reason that the flexor muscles of the knee are stronger than the extensor muscles. That is incorrect. The function of the flexor muscles is to draw up merely the weight of one leg while the extensor muscles lift up the weight of the whole body. Therefore it stands to reason that the great quadriceps muscle must be stronger than the hamstrings.

The reason why the knee gets flexed is this; if the knee is much bent the quadriceps is put on the stretch, and if the knee is straight the hamstring muscles are on the stretch, so as a compromise the joint is placed half-way between the position which would extend the quadriceps and that which would put on the stretch the hamstring muscles.

You will find generally that an inflamed joint is somewhat bent. There is one exception, viz., the joint of the wrist. For as this joint can be flexed almost as much as it can be extended, it is kept straight so as to be half-way between these two positions.

Then how do you get this backward dislocation in knee-joint disease? After the knee has become bent it is more or less fixed by stiffening of the soft parts around and adhesions between the joint surfaces. If, now, you attempt to straighten it the tibia is unable to slide forward upon the condyles. Instead of this it rotates forward upon a pivot somewhere at the back part of the condyles. The displacement is therefore not due to backward dislocation, but to the fact that the tibia cannot come forward. The peculiar shape observed by the straightened knee is sometimes called the "bayonet" displacement, from its similarity to the attachment of a bayonet to the end of a gun. I do not say that you will not in some cases get actual dislocation backwards, but in most you do not.

Another point to which I would call attention is, when the knee is bent, why is the foot everted? Some men will tell you it is owing to the pulling of the biceps. They do not explain why the biceps should pull so much harder than the other muscles. I believe it can be very easily explained in this way: if a person has a painful knee-joint, he lies with it on a pillow in bed on the affected side. But after a time he gets tired of lying on that side, and he tries to turn round in bed, and pulls himself over on his back, still keeping his knee in the same position, or he even turns over to the other side. The constant effort to turn round and rotate the thigh to the opposite side while the leg remains fixed, causes the ligamentous tissues to yield, so that after a time this rotation of the femur at the knee, or in other ways this external rotation of the tibia becomes permanent.

Another point—How do you know when you are operating upon a joint and can see its interior, that the disease is tubercular? I think an important sign is the presence of opaque, yellow flakes of lymph, and curdy matter floating in the thin pus or serum, which fills the joint.

Secondly, you may see a number of cavities in the bone, very often full of a similar curdy material, or of hard, yellow, dead masses of bone which are, so to speak, inlaid into the healthy bone around. Those tubercular masses of bone are very characteristic. They are not always present when the disease is in the synovial membrane. There is also another condition to which I would advise you to pay special attention. In a case of tubercular disease you will always find, I think, a peculiar ingrowth of granulation tissue on the surface of the cartilage. That is a condition which you will recognise clearly—the peculiar way in which the cartilage gets encroached upon by the synovial membrane. Supposing I draw the end of the femur (femur represented). Here is the cartilage and here are the two articular surfaces, and here is the edge of the synovial membrane around the cartilage. You will find that from that edge a mass of granulation tissue grows from the thickened synovial membrane over the cartilage and sticks firmly to the cartilage, and if you tear it off, a good deal of the cartilage often comes off with it. This condition is equally evident in the spirit preparation, and the granulation from the synovial membrane has been compared to ivy clinging to an old wall.

You see it also in the patella. Supposing this is the posterior surface of the patella (patella represented), the synovial membrane will grow around the patella, covering up the back of the patella, until there is only a little space left about the size of a shilling. When you examine spirit preparations of diseased knees you will generally be able to tell from what disease the patient was suffering. If it is a case of osteo-arthritis, you will see evidence of large osteophytes thrown out, and the surface will see grooves and eburnation. If it is a case of Charcot's disease you will see an enormous destruction of one or both condyles, and a great hollow where all the bone is worn away.

But if it is a case of acute arthritis, you will see another peculiar condition. Suppose these are the articular surfaces (surfaces represented) in acute arthritis, you will generally find that

the cartilage melts away from ulceration, but so unequally that little islands are left here and there while all the rest of the articular surface consist of bare and somewhat rarefied bone.

(To be concluded.)

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Cases under Dr. Pye-Smith.

Mary	25.	Rheumatism. Anæmia. Pulmonary systolic murmur.
	27.	Diphtheria. Tracheotomy.
	31.	Facial neuralgia.
	36.	Abdominal tumour. ? Carcinoma of pylorus.
	37.	Mitral regurgitation. Reduplicated second sound.
	Cot 55.	Diphtheria. Tracheotomy.
Philip	21.	Congenital heart. ? Patent ventricular septum.
	23.	Rheumatism. Mitral regurgitation.
	25.	Recurrent left pleuritic effusion.
	26.	Rheumatism. Mitral regurgitation.
	27.	Phthisis. Right apex. Hæmoptysis.
	33.	? Enterica
	35.	Mitral regurgitation.
	36.	Acute rheumatism; first attack. Apical systolic.
	37.	Phthisis. Tuberculous laryngitis.
	39.	Spastic paraplegia. Spinal caries.

Cases under Dr. Taylor.

Mary	44.	Acute rheumatism. Systolic murmur.
	45.	Chorea.
	46.	Cirrhosis. Ascites. Bronchitis.
	47.	Appendicitis. ? Systolic bruit.
	49.	Pleuritic effusion. 36 ozs. drawn off.
	50.	Exophthalmic goître.
Stephen	1.	Rheumatism. Systolic bruit.
	3.	Tumour cerebri. L. facial paralysis. L. optic atrophy.
	4.	Appendicitis.
	5.	Mitral stenosis.
	6.	Chronic peritonitis (tubercular). Bronchitis.
	9.	Enterica.
	10.	Pyloric obstruction. Growth.
	16.	Mitral regurgitation.

Cases under Dr. Goodhart.

Philip	1.	Phthisis. Jacksonian epilepsy.
	3, 12.	Diabetes mellitus.
	7.	Locomotor ataxy. ? Syringo-myelia.
	13.	Tubal nephritis.
	14.	Phthisis. ? Caries of spine.
	16.	Acute rheumatism. Mitral regurgitation.
	17.	Adherent pericardium. Mitral disease. Tricuspid regurgitation.
	18.	Pericarditis. Peripheral neuritis. Phthisis.
Mary	14.	Acute rheumatism. Pericarditis.
	19.	Phthisis.
	21.	Cancer of peritoneum.
	22.	Pleuritic effusion.
	24.	Carcinoma ventriculi.
	55.	Hydrocephalus.

Cases under Dr. Hale White.

Mary	1.	Mitral stenosis with regurgitation. Tricuspid regurgitation.
	2.	Acute rheumatism. Systolic murmur.
	3.	Osteo-arthritis.
	4.	Chorea.
	5.	Chronic uræmia. Failing heart.
	6.	Exophthalmic goître. Hysteria.
	9.	Chlorosis.
	10.	Chlorosis.
	11.	Mitral constriction. Tricuspid regurgitation.
	12.	Chronic tubal nephritis.
Stephen	23.	Cirrhosis of liver.
	24, 25, 26, 30, 31.	Typhoid.
	27.	Pleurisy.
	28.	? G. P. I.
	33.	Acute rheumatism.
	35.	Mitral stenosis and regurgitation.
	36.	? Carcinoma of liver. ? Syphilitic.
	37.	Cirrhosis of liver.
	39.	Headache following head injury.
	40.	Chronic colitis.

"Clinical."

John	1.	? Cerebral tumour. ? Cerebral abscess.
	2.	Pleurisy with effusion.
	3.	Enterica.
	4.	HCl. poisoning. Typhlitis. Operation.
	5.	Hyper-pyrexia. ? Pneumonia.
	8.	Mitral stenosis and regurgitation. Aortic regurgitation.
	10.	Pleurisy with effusion.
	11.	Enterica.
	12.	? Acute rheumatism.
	13.	Lymphadenoma.
	14.	Immersion.
	15.	Phthisis.
	16.	Pneumonia.
Miriam	17.	Acute rheumatism.
	18.	Enterica.

MIRIAM 20. ? Aneurysm.
21. Typhlitis.
22. Pleurisy with effusion. ? Tubercular.
23. Gastriectasis.
25. ? Renal calculus.
26. Typhlitis. Operation.
27. Enterica.
28. Mitral stenosis and regurgitation. Tricuspid regurgitation.
30. Intestinal obstruction.
32. Laryngeal obstruction. Tracheotomy.
35. Tuberculous broncho-pneumonia.

In the Surgical Wards.

CASES UNDER MR. HOWSE.

NAAMAN 6. Epithelioma linguæ. Excised.
12. Retained testis. Castration.
15. Old injury to shoulder. ? Fracture with dislocation.
16. Old Pott's disease. Bilateral synovitis of knees. ? Tuberculous.

CHARITY 6. Fractured femur.
7. Strangulated femoral omental hernia. Kelotomy.
9. Moveable kidney.
12. Old diphtheritic ulceration of soft palate.
12. ? Periostitis of lower jaw.
14. Lupus hypertrophicus on face. Ankylosed knee.
17. Moveable kidney.
Cot D. Granulation tumour after cutting of frænum linguæ.

ASTLEY COOPER 6. Fractured ribs.
16. Compound tibia and fibula. Secondary amputation. (Stokes'-Gritti.)

CASES UNDER MR. DAVIES-COLLEY.

LUKE 3. Ventral hernia. Radical cure.
4. Abdominal tumours. ? Retroperitoneal. ? Tabes mesenterica.
6. (Æt. 11 months.) Cervical cystoma. ? Branchial dermoid.
8. Epithelioma of mouth, considered inoperable.
8. Vesical calculus.
10. Arthritis of knee in hæmophilia.
11. Acute cystitis.
13. Gummatous testis with hydrocele. Periosteal node on clavicle.

LYDIA 9. Fractured femur.
18. Acute periostitis of radius. Incised.
22. Fractured patella.
23. Carcinoma mammæ. Excised.

CORNELIUS 6. Refractured patella. Third time.
7. Fractured ribs.
10. Fractured femur.

CASES UNDER MR. LUCAS.

JOB 16. Acute glossitis and submaxillary œdema. Discharged.
16. Onychia.
23. Epithelioma of leg with general pityriasis rubra.

CHARITY Cot B. Nævolipoma of thigh. Excised.
11. Femoral hernia. Radical cure.

LYDIA 14. Scirrhus mammæ involving skin. Excised.

CASES UNDER MR. GOLDING-BIRD.

LAZARUS 5. Gummatous orchitis. Castration.
22. Tuberculosis cervical adenitis. Excised.

MARTHA 1. Ankylosed elbows. Post scarlatinal. Right excised.
5. Membranous colitis. Right lumbar colotomy.
8. Recurrent carcinoma recti. Excised 1894.
Cot A. Tuberculous epididymitis, æt. 2.

CASES UNDER MR. JACOBSON.

NAAMAN 22. Dupuytren's contraction. Divided.

DORCAS 2. Irreducible umbilical hernia.
Cot A. Nævus encircling forearm. Cauterised.

PATIENCE 14. Pelvic cellulitis. Æt. 63. ? Suppurating intestinal growth.

CASES UNDER MR. SYMONDS.

LUKE 16. Stricture of œsophagus. Cardiac end.
17. Rectal ulceration. ? Syphilitic. ? Ulcerative colitis.

JOB 10. Sarcoma of upper jaw. Excised.

MARTHA 14. Cyst in thyroid. Enucleated.
14. Epithelioma of pharynx, involving larynx.
15. Acute glossitis and submaxillary œdema. ? Dental in origin.

CASES UNDER MR. LANE.

JOB 12. Old fracture of first rib. Pressure on brachial plexus. Callus removed.

DORCAS 5. Old tuberculous elbow excised for bony ankylosis following erasion.
Cot B. Secondary arthritis of knee to disease of tibia. ? Tuberculous. Knee erased.

CASES UNDER MR. DUNN.

LAZARUS 1. Papilloma of prepuce. Removed.
3. Cyst of epididymis and hydrocele.

MARTHA 11. Recurrent carcinoma of breast.
12. Cyst of breast. Excised.
Cot C. Nævus on face.

Passim.

It is with great regret that we have to announce that Dr. J. F. Goodhart has sent in his resignation of the post of Physician to the Hospital. His resignation was accepted at a meeting of the Court of Governors, on Wednesday last, and a resolution was passed thanking him for his distinguished and valuable services to the Hospital during the period of twenty-one years that he has been connected with it as Physician and Assistant-Physician. Dr. G. Newton Pitt has been appointed to fill the vacancy caused by the resignation of Dr. Goodhart.

By the resignation of Dr. Goodhart, Guy's sustains the greatest loss that it has experienced since the retirement of the late Mr. Durham. Though owing to the exigencies of private practice he was not quite so constant and well known a figure as Mr. Durham, Dr. Goodhart has been none the less popular, and no one could be regarded with greater admiration and affection by men of all stations at the hospital; and this regard has spread far beyond the walls of Guy's into the outside world, to wherever his splendid personality has penetrated. His leaving Guy's will come as a personal blow which will be keenly felt by every man at Guy's who has had the enviable opportunity of meeting him.

Dr. Pitt's appointment to the post of full physician necessitates a rearrangement of the assistant physicians and surgeons. Dr. Perry and Mr. Jacobson now correspond to Dr. Pye-Smith, Dr. Shaw and Mr. Symonds to Dr. Taylor, Dr. Washbourne and Mr. Lane to Dr. Hale-White, and Dr. Bryant and Mr. Dunn to Dr. Pitt.

Dr. Hale-White will now move over to what was Dr. Goodhart's division of Mary, and will move downstairs to Philip, while Dr. Pitt will have his beds in Stephen; also Dr. Hale-White's take-in corresponds to Mr. Lucas's, and Dr. Pitt's to Mr. Golding-Bird.

We have been favoured with a rough draft of the report of the Medical Committee on the rearrangement of the obstetric department on the opening of Queen Victoria ward. This report has been adopted by the Staff and School Committee, and from it we have abstracted the principal points of interest.

The Visiting Staff is to consist of two obstetric physicians and an assistant obstetric physician. Dr. Horrocks has been appointed a full obstetric physician, and the post of assistant obstetric physician is at present vacant. The obstetric physicians have charge of the gynæcological and maternity wards, and have no duties in Out-Patients; the assistant obstetric physician takes Out-Patients and has no beds in the wards.

In the maternity ward (Victoria ward) the senior and junior physicians are to have charge of the cases admitted in alternate weeks, and similarly cases from the surgery are to be admitted into the gynæcological ward (Queen ward) under the taking-in physician, so far as his beds are available. The senior obstetric physician is to have the option of taking cases transferred from the general wards.

There are to be four resident obstetric officers, having free board and lodging in the college, each officer to hold his appointment for six months, the first three having the title of assistant obstetric resident (A.O.R.) and the second three months having the title of obstetric resident (O.R.). One assistant obstetric resident to come on every six weeks. The junior assistant obstetric resident is to have charge of the externs and attend all difficult cases of labour in the charity, and is to summon the obstetric resident to all cases which require operative interference. The junior assistant obstetric resident shall assist at all operations on cases transferred from the charity to the maternity ward. The senior assistant obstetric resident is to look after all septic cases, both in the charity and the wards, and will give classes to oncoming externs in the last fortnight of every month that he is on duty. After three months the assistant obstetric resident will become obstetric resident for the following three months, being appointed to the senior or junior physician according to the vacancy. The obstetric resident whose physician is taking-in will attend all cases of labour to which he may be summoned by the assistant obstetric resident. When practicable each obstetric resident is to give anæsthetics in operations performed by his colleagues' physician thus enabling each obstetric resident to see his own physician's operations.

For the new appointment of dressers in the gynæcological wards the following regulations have been made. The appointment is for three months, four men to come on duty every six

weeks, and no student is to be appointed obstetric who has not done obstetric dresser. In the first six weeks they will act as ward clerks, and in the second six weeks they will act as dressers, two to each physician, and will also be clerks at Out-Patients, two on Thursday and two on Saturday.

THE annual combined Guy's and Thomas's tour came off last week, and can be best described as usually successful. As neither Sime or Alexander were able to go, the three-quarter line had to be altered, and consequently was weak against Cardiff. The Wetherells were good at half. In the Penarth match their three-quarters were weak and we secured a win. Trail was especially prominent. F. C. Wetherell dropped a pretty goal and materially strengthened the side in both games. Hanbury and Rae played well. The forwards played well on Saturday; but the hard game against Cardiff seems to have taken away all their dash; at all events their game against Penarth was not nearly as good.

WE fear a characteristic of some of our forwards is to look on and see what is going to happen to the ball when it is at their feet. It seems unnecessary to state that unless you do something with it yourself, somebody else will —that person generally an opponent. To wheel properly we must have three in the front row, and as soon as the ball is out of the scrum the front row should break up and follow the ball at once. The work on the line out is, as a rule, good.

IT is very encouraging to note what a great amount of keenness is being shown among Association football players at the hospital this year, there being enough men playing to keep three teams going regularly, with very excellent results, and this notwithstanding that of last year's first XI. only four men are playing this year, seven vacancies thus being left to be filled by new men.

THE first XI. started the season well last Saturday by defeating Chertsey in the first round of the Surrey Senior Cup competition by seven goals to nil, the whole team playing exceedingly well throughout and with plenty of go, and it is to be hoped that the second XI. will have the same good fortune in the Surrey Junior Cup on November 12th. Again we would emphasize the point, and it is one that cannot be repeated too often, that men must recognize that constant training together down at the ground is the only key to success, and this must be done regularly and thoroughly in order to achieve a creditable record for the ensuing year.

THE Nurses' Choral Society has commenced very successfully this year, over sixty nurses having become members. On the men's side more tenors are wanted to keep a harmonious balance and then nothing will be wanted to ensure a successful season. We imagine that the only difficulty will lie in the selection of works sufficiently colossal to enable this galaxy of vocal talent to do themselves justice. Practices are held every Friday evening at 5.30 p.m.

WE would call the attention of all readers of the GAZETTE who possess votes for the Royal Medical Benevolent College, Epsom, to the very deserving case of Charles Ransom Gross, who is applying for election for the third time in May, 1899. He is ten years old and is a son of Charles Gross, Esq., M.D., F.R.C.S., who was for thirteen years Medical Superintendent of St. Saviour's Infirmary, East Dulwich, and lately in private practice in Bayswater. Owing to illness (general paralysis) Dr. Gross is totally incapacitated from work, and his family are in very straitened circumstances. The case is strongly recommended by many members of the medical profession, among them Dr. Horrocks, and votes should be sent to Charles Horsley, Esq., 93, Borough, S.E.

THANKS to the interest of Mr. F. S. Batchelor, all the photographs of former residents in Guy's, over fifty in number, have been cleaned and reframed and are now hung in the dressers' room in chronological order. Arranged in this way they form a most valuable and interesting record of the men who have passed through Guy's and made their mark from 1867 to the present time. With few exceptions the whole of the present medical and surgical staff appear in these photographs at various times, and in some cases it is surprising to note how little they have changed in the twenty or thirty years that have elapsed.

THE Warden of the College wishes it to be understood that books, bags and parcels are not to be left in the passages of the club in future, as they are very inconvenient, and, from their owners' point of view, not safe. All bags not removed from the passages by December 1st, will be forfeited to the College.

If any class of human beings see human nature as it really is—see their fellow man and woman at their best and at their worst, without the varnish of conventionality—surely hospital nurses have unrivalled opportunities for this study, though most of them are too busy and tired to record their impressions. After twelve years' experience of patients of every grade, a writer in the *Cornhill* for October says:—I can fully confirm all that is said about the callousness of the poorer classes with regard to sickness and death, kind and helpful to each other as they undoubtedly are, but their feelings are blunted, possibly by great familiarity and close contact with suffering and every form of disease.

Among other stories the writer gives the following:—A hospital sister summoned the wife of one of the patients into her private room and began to tell the woman gently that the doctors thought very badly of her husband. "Well, Miss, that's just wot I sez to 'im lawst visitin' day. Tom, I sez, I think you're breaking up, I sez. But we'd miss yer wages of a Saturday, I sez, if so be as it pleased the Lord to tyke yer."

This is only one of the many good stories that are told in a most interesting article, by one who is evidently familiar with hospital work, and who also possesses a keen sense of humour.

The following terse and vivid account of an operation, from the patient's point of view, appeared in last week's *Academy*, and may possibly be of interest to those who are very familiar with the same scene from the professional standpoint.

Operation.

The nurse stole into the room: "Please put on your dressing-gown and slippers, and come downstairs." Four doctors, in their shirt sleeves, were standing behind the operating table. "It's a hard bed," I said, making a great effort to be brave, for the sight terrified me. "Not so hard as a plank bed!" came the cheerful answer. They were accustomed to amateur patients. I stretched myself upon the table. As they uncut the bandages I remarked that the afternoons were drawing in—drawing in. "This will send you to sleep," said a voice, placing an india-rubber cap over my face. Take a deep breath." His hands pressed the cap to my lips; the veins below my ears throbbed beneath the touch of his fingers. I heard them discussing which instruments they should use. "To-day," I thought, "the Guards come home."

. . . . . .

An eternity later my mind partly awoke. I was in bed. My hands went down to the bandages. The ether! That terrible, nauseating ether. Will it never leave me? Dim forms flitted about the room. They were kind, I knew, but I was so lonely with my pain, I could have killed them for not assuaging my awful thirst. I cried and complained, but nobody attended. If only I could cough. I thought of running brooks in Ireland, and water-hens. If only I could turn over on my side. If only—— Strong hands moved me. Oh, the relief!

. . . . . .

When I awoke the doctor was bending over me: "Then you haven't killed me," I said. To which he replied gruffly: "You'll do now." "What a casual man," I thought. Something pricked me on the shoulder. I fell asleep—quite happy.

Chapel News.

Two services of preparation for Holy Communion will be held in the Chapel on Saturday, November 12th, one at ten o'clock in the morning, and the other at ten minutes to ten in the evening.

There is a celebration of Holy Communion every Sunday morning at 7 and 8.40, also on Thursdays at 7, unless otherwise announced.

In cases of emergency communications for the Acting-Chaplain (the Rev. Herbert E. Gunson) should be sent to the Collegiate House, 9, St. Thomas's Street, where there is a night-watchman.

From the Gazette's Special Pathologist.

J. H. E., Eastbourne.—The growth on blood-serum after incubation consists of Klebs-Löffler bacilli in almost pure culture; a few micrococci are present as well (11th October).

R. B. M., Swaffham.—Tubercle bacilli are present in the sputum in fairly large numbers.

J. H. E., Eastbourne.—The growth on blood-serum after incubatioL consists of Klebs-Löffler bacilli, streptococci and staphylococci.

PATHOLOGIST.

Papers by Guy's Men.

A Contribution to the Pathology of Infection by the Pneumococcus. By W. H. Brodie, M.D., Aberdeen, W. G. Rogers, M.S., M.D. Lond., and E. T. E. Hamilton, M.S., M.D. Lond.—*Lancet*, 22nd October.

On Combined Pleural and Pericardial Adhesion. By Frederick Taylor, M.D., F.R.C.P. Lond.—*Ibid.* 29th October.

An Early Case of Cerebral Abscess.

Mr. B. W. L., æt. 24, chemist, developed suppurative otitis media after measles when two years old. Chronic otorrhœa and almost complete deafness followed and have persisted ever since. At thirteen some meatal polypi formed, pus was retained, and a severe attack of mastoiditis (?) followed and nearly proved fatal.

August 14th, 1898. Patient had right earache and pyrexia. The discharge was slight and not offensive. There was no headache or rigor. The pain was severe enough to keep the patient in bed. Four days later there was sudden discharge of pus from the meatus and the pain was relieved. Pyrexia continued until on August 23rd patient sought admission into hospital for a subperiosteal mastoid abscess. He then looked feeble and septic, with widely dilated pupils. He was not thin. There was no sign of lateral sinus, thrombosis, or cerebral abscess. Temperature 101°, pulse 100, respiration 14.

On exposing the mastoid it was found to present a minute perforation leading to a greatly dilated antrum filled centrally with foul greenish pus, and laterally with matted caseous material. A free opening was made into the antrum, and a thorough communication established with the middle ear.

The temperature and pulse dropped, and the patient seemed to improve for a week. He, however, had slight delirium at night, which was considered to be due to his former septic condition.

Suddenly, a severe frontal headache and vomiting, and a temperature of 102° appeared. There was no optic neuritis.

Patient attributed his symptoms to some plums that he had taken on the previous day, and said that he often suffered from bilious attacks. The attack disappeared within six hours, almost as suddenly as it came.

During the next week the following signs and symptoms gradually developed.

1. Headache.—There were five agonising attacks of frontal headache, lasting only a few hours at a time. In the intervals there was very little pain and the patient, prejudiced by fear of another operation, denied any to me. Headache, vomiting, and pyrexia at first accompanied one another very closely. Later the headache became more severe and continuous, and was mostly occipital, never unilateral.

2. Vomiting had no relation to food, medicine or constipation, although the patient was profuse in his explanations. Plums, slop diet, and m.m. with m.s. were blamed in turn. Any attempt at sitting up caused vomiting. The vomit consisted of undigested bile, curds of milk and bile.

3. Coincident with the periodical attacks of headache, etc., the mouth became dry, and the tongue dry and furred in the centre, and of a brown colour. One day it would be "*cerebral*" another clean.

4. *Constipation* at first was troublesome, later obstinate. Croton oil had to be given.

5. *Optic Neuritis.*—Gradually a change occurred in the right disc. It never amounted to anything more than a blurring of the edge and slight congestion. The disc might easily be called normal, but that at a former examination the disc *had been different* and similar to the other one, which was normal throughout.

6. *Delirium.*—This was slight and occurred only at night. Patient soon began to have a difficulty with long words and involved sentences, and had to read them twice over to understand them. Articulation was distinct. Reasoning power was good, but slower than usual. Patient would argue or discuss anything, and took an interest in explaining away all his symptoms. His only trouble, he said, was weakness, and he scouted the idea of an intra-cranial abscess, and declined operative interference. He misused words or omitted them occasionally. He called me nurse, and the pillow mixture, but he immediately corrected himself. Later on, when forgetting a word he used "mixture" instead. This seemed fixed in his mind by his antipathy to white mixture. Once he wanted to say beef-tea, but said "that fluid stuff! Oh, dear; what you get at the butcher's." Beef was suggested. "Oh, yes, of course, beef-tea." The expression of the face changed much, the features were fixed and the eye lost its bright look of intelligence. Yet the memory of events that happened just before the second operation, when the patient was roused, was very good, and the patient can now tell me the details of a compress applied on that morning. On looking back on that time, however, it seems very short and hazy to him. The patient denied any mental change on the day preceding the operation. Mr. Lane asked the man whether he felt fit for work, the reply was "O L ——, yes, except that I am weak." The oath would have been suppressed at ordinary times, and just served to show that there was some loss of control. The mind was clearly *changed*, and the patient had a longer latent period than usual when asked a question, and looked sillier than his wont.

7. *Pyrexia.—Coma.*—There was no coma and but little drowsiness. The temperature was erratic and presented the sudden excursions almost characteristic of cerebral and hepatic abscesses. Later it was more continuously raised. Its normal diurnal variations were absent. There were no rigors.

8. *Paralysis.*—There was no paralysis of ocular or other muscles.

9. *Reflexes* were first brisk, but later lost.

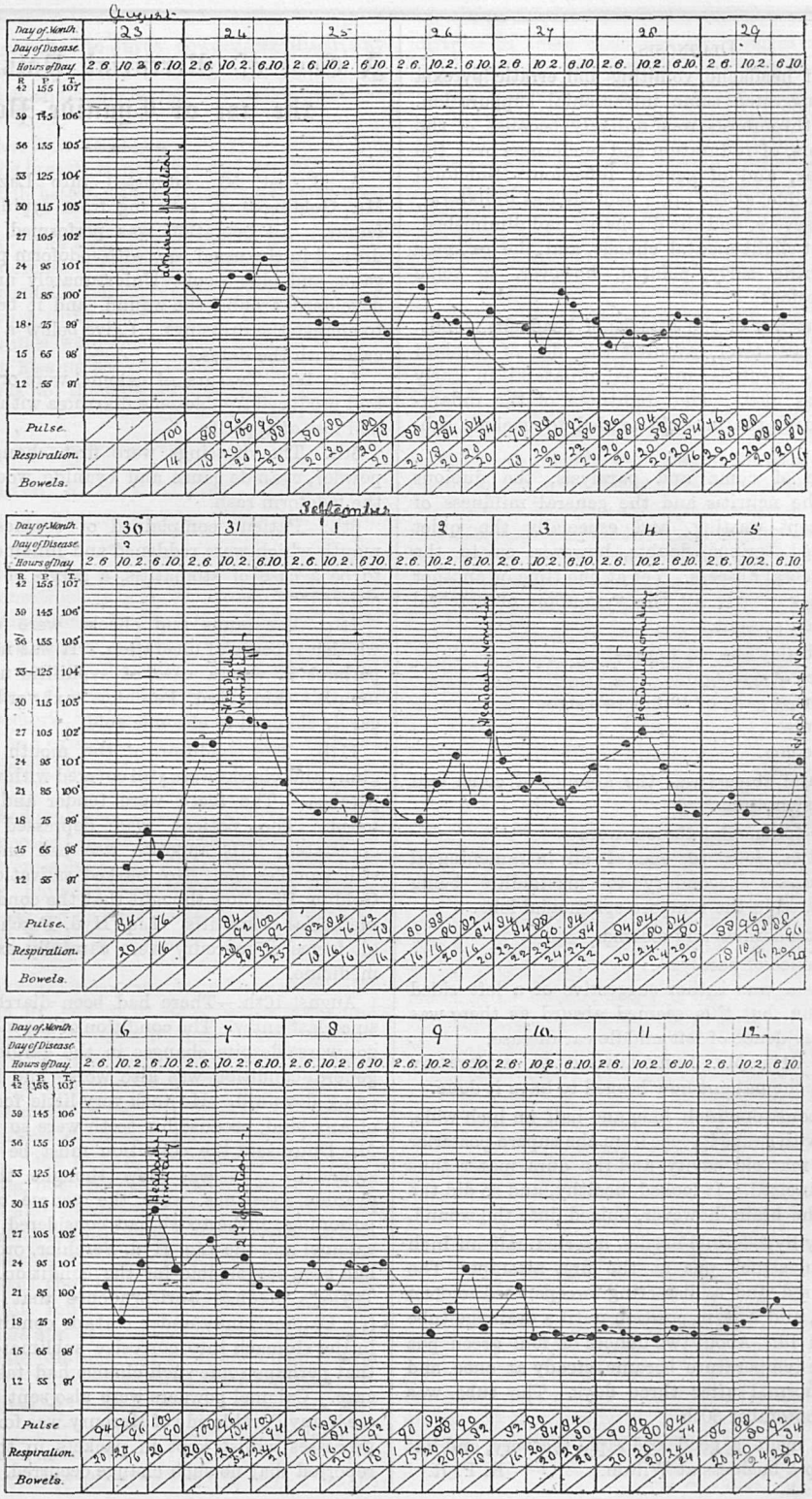
10. *Wasting.*—This was the most striking sign, and there was a loss of over two and a half stone in a little over a week.

11. Tenderness on percussion over the right temporo-parietal region was noticed, and later some

12. Oedema also.

13. The mastoid wound looked unhealthy and dry.

14. The pulse became feeble, but never slow. This caused a false anæmia, especially seen on the face, and relieved almost directly after the operation.



B. W. L., æt. 24. Cerebral Abscess. Temperature Chart.

DIAGNOSIS.

The onset of headache, vomiting and erratic pyrexia immediately suggested some intracranial suppuration. Lateral sinus thrombosis was unlikely because of the absence of rigors, of induration and tenderness over the internal jugular, and of general infection. Subdural abscess was possible, as the optic neuritis was unilateral, pain was very severe, and the discharge had diminished. The definite yet slight mental change, and the extreme wasting occurring early, pointed, however, to some intracerebral lesion.

The intermittency of the attacks of headache, vomiting, and the erratic fever, favoured the idea of cerebral abscess. Optic neuritis may be unilateral in early cerebral abscess also. The slightness of the inflammatory signs near the mastoid tended to exclude subdural abscess.

The absence of coma and paralysis, the dubious character of the neuritis and the general mildness of symptoms except wasting, and especially the quiet intervals, raised serious doubts, however, as to the presence of cerebral abscess. Yet at one time or another during the week nearly all the symptoms of cerebral abscess had been present.

Against cerebellar abscess were—

(*a*) Absence of nystagmus.
(*b*) Staggering gait, or Romberg's sign.
(*c*) Slow pulse.
(*d*) Early coma.

Against frontal abscess was the absence of coma and severe mental symptoms.

For temporo-sphenoidal abscess were—

(*a*) Statistics, four to one of all intrameningeal abscesses secondary to mastoiditis being located in the temporo-sphenoidal lobe.
(*b*) ? The tenderness and œdema.

Against, absence of paralysis.

The aphasia was rather suggestive of a left sided lesion, but this seemed absurd as there was no evidence of left middle ear disease.

On August 31st, Mr. Lane advised an exploratory operation, and the patient now begged to have it done.

A piece of bone, one inch long and half an inch wide, was removed with gauge forceps from the supero-posterior corner of the mastoid cavity, and the dura mater thus exposed and incised. It looked healthy, and so did the pia mater. The brain, however, bulged into the wound.

An ordinary hypodermic needle, inserted half an inch into the brain, struck pus at the first attempt. The brain was incised and a dissecting forceps used to open up the wound, and kept in position until a drainage tube had been fixed in. About two ounces of foul green pus escaped. The temperature became steady at once, and reached the normal after three days. The tube was removed on September 30th.

The patient made a good and rapid recovery, and has since taken up a business at Wilton. R. P. R.

A Case of Mercurial Poisoning from the use of Cyanide Powder.

A. B., æt. 56. Admitted into Lazarus 12, under Mr. Golding-Bird, suffering from syphilitic necrosis of femur. An operation was performed and the wound dressed in the usual way with iodoform powder, iodoform gauze and blue wool. Unfortunately an iodoform rash developed around the wound, and it became necessary to change the dressings. I give below a summary of the case with the dates.

July 1st. Two grs. of calomel were ordered as a purge and produced troublesome diarrhœa with great depression and loss of appetite.

5th. The dressings were first changed to cyanide powder, cyanide gauze and cyanide wool on account of the iodoform rash.

6th. Patient complained of soreness of gums and mouth which were reddened and inflamed. Thinking it to be a case of stomatitis, a gargle of Pot. Chlor. was ordered.

7th. The gums and cheeks were covered with a whitish superficial ulceration. It was now thought that perhaps it was a case of syphilitic ulceration of the mouth. Liq. Hyd. Perchlor. ɱxl. ordered, t.d.s. and gargle changed to chromic acid.

11th. The condition of the mouth was worse, the gums and cheeks were still covered with whitish ulcerated patches. The teeth were tender and the breath was fœtid. The patient was depressed and becoming emaciated. His appetite was bad and diarrhœa was still troublesome. No marked salivation present. Mr. Golding-Bird now thought that the condition was one of mercurial stomatitis. Liq. Hyd. Perchlor. omitted and all forms of mercury were carefully excluded from his medicine.

August 10th.—There had been diarrhœa at intervals since last entry. The condition of the mouth had steadily got worse despite changes in the gargle. The patient's general condition was also worse and he seemed to be going downhill. He took very little food and no solids of any kind, because his teeth were so tender and loose. Mr. Dunn said the condition must be one of mercurial stomatitis. It was now thought that perhaps the cyanide dressings were the source of the mercurial poisoning; hitherto we had considered that the dose of calomel and the Liq. Hyd. Perchlor. ordered on July 7th had been responsible for the condition. It is stated in Taylor's Medical Jurisprudence that "this compound (*i.e.* Calomel) may under certain conditions be changed in the stomach into corrosive sublimate." We thought that perhaps some such change had taken place in this case. Calomel powders were also sent to Dr. Panting to see if any Perchloride of Mercury was formed by oxidation processes whilst kept in packets in the wards, and he reported that no such change occurred.

The dressings changed to Jeyes' powder, sterilised lint and salicylic wool.

13th. The teeth and gums better, but patient cannot take solids.

26th. Three or four teeth have dropped out of the upper jaw, but the breath is not so fœtid and the teeth and gums are much better. Patient is beginning to take solid food.

September 7th. The teeth are quite firm and there is scarcely any tenderness of the gums. Solid food is now taken well, and patient's health is rapidly improving.

From the above I think there can be no doubt that the cyanide dressings were the source of the mercurial poisoning, and on looking back it seems strange that this possible source was not thought of much earlier.

G. E. RICHMOND.

Cardiac Pain and Cardiac Strain.*

By Dr. A. J. SHARP, Whitby, Yorkshire.

THE term *Cardiac Pain* includes every case in which pain or painful sensations at or in the region or action of the heart are complained of. But the series is a very long one, beginning at one end with cases of palpitation and breastpang, due to digestive irregularities, and leading up in a series of increasing gravity to the classical cases of angina pectoris, which are ultimately fatal.

Between these two extremes come a large number of cases, the exact gravity of which it is often most difficult to gauge accurately.

Cases of marked valvular disease, aneurysms, and cases of angina pectoris in men who have passed middle life, I wish to put entirely on one side. In private practice it frequently happens that the pain and distress complained of bear an inverse ratio to the abnormal signs present, and a hurried examination may be very misleading.

Dr. Burney Yeo † describes four cases in women, aged respectively 32, 25, 21, and 29, in all of whom pain and tenderness were very prominent features. The first had mitral disease, but in the other three it is expressly stated that there were no murmurs. Three of the four cases were in housemaids or waitresses, and were causally related to the constant strain of carrying heavy trays up and down stairs. One case terminated fatally after a few months' illness, but the other three were decidedly benefited by rest and treatment. Now, in Whitby, we have a hilly district, coupled with a considerable female population employed in lodging-houses and hotels. During the summer they have to work hard for their living, which entails much running to and fro, and carrying trays and jugs and pails up and down from morning till night, apart from bed-making and often bc ot-cleaning and mangling linen. Such conditions of incessant unrest are a fertile source of cardiac strain. The pain and distress in these cases are often aggravated by hurry, worry, anxiety, and lack of domestic peace.

Such a case is M. X., 32, single, employed with her mother and sister in a large lodging-house in one of the best quarters of the town. Her father was always a nervous man, and died suddenly after a short illness. Her mother is anxious. Her youngest brother is "as nervous as his father was." One sister suffers from glycosuria, has fits of depression, so that she dreads going out of doors, etc.; and another has gastric ulcer.

The patient had a bad attack of scarlet fever, followed by dropsy, at the age of seven, and first fainted about this time. Attention was called to the heart ten years ago when laid up with "inflammation of the bowels." Six years ago she had "a bad bout with neuralgia of the heart and left side" and fainting. Four years ago she was in bed a week with influenza. Two years ago was in bed three months with pain at the heart, sickness, etc. Notes of this last illness show the pulse to have varied from 108 to 88, and a soft systolic murmur was heard at the apex, growing louder towards the base. Since then her work has been lightened, but she often does a thing hastily herself rather than wait for assistance. She cannot be called a hysterical subject. During the present year she has been under treatment since the end of May. The one complaint has been pain and irregular action of the heart, complicated every few days by sickness, menstrual colic, hepatalgia, insomnia, etc. The pain is a stabbing or aching all over the heart, in the left side and back; it has reached the left arm at times. The third, fourth and fifth spaces are tender and I have twice detected a systolic murmur along the left side of the sternum, inaudible beyond the apex-beat, which is not displaced. Thrill, reduplicated second sound, and increased cardiac dulness are absent.

On sitting up in bed the heart becomes excited and the pulse irregular, varying from 100 to 84. The hands and feet are cold. The liver is palpable and tender. There is no venous pulsation nor *bruit de diable*. She is thin and moderately anæmic, but has neither dropsy nor albuminuria. Hence we must class the disorder as a neuro-muscular one.

Fifteen weeks' continuous rest in bed, brandy when needed, such food as she would take, and an assortment of physic, have helped to reduce the frequency and severity of the painful attacks, so that now she can generally sit up in the afternoon.

Digitalis and Strophanthus reduced the pulse-rate without relieving the pain and unpleasant sensations, while Ammon. Carb., Nux Vomica, Strychnine, Arsenic, Ac. Phosphoric, etc., made little impression on either the one or the other.

Morphia I was scarcely permitted to use at all, and Iron in any shape always upset her. Nitroglycerine gave no relief, and Amyl Nitrite she would not try, remembering the headaches. Cactus Grandiflorus warded off the attacks of pain to a certain extent, and blisters over the tender spaces relieved for the time being. Chloroform and other anodyne liniments she

* A paper read at Scarborough, 8th October, before the Yorkshire Branch, British Medical Association.

† "Manual of Medical Treatment," i., pp. 378. 80.

would scarcely try on account of their smell; while Gelsemium, Prussic Acid, Spigelia, Copper, Arnica, etc., seemed to do no good at all. Dr. Gee, of St. Bartholomew's, who was staying in Whitby, very kindly saw her with me and referred me to a clinical lecture on *Weak Hearts*,* given by him in June, 1897, all the symptoms of which the present case exemplified. These are—

(i.) Distressing sensations referred to the heart.
(ii.) Shortness of breath.
(iii.) Changes in the pulse.

The pathology in the present case is perhaps a degenerative condition of the myocardium, combined with a disordered state of the cardiac nerves.

The ætiological points are—

(1.) The family history of "neuroses," aggravated by
(2.) Hurry, worry, scurry, anxiety, over-work, etc.
(3.) Scarlet fever, influenza, anæmia.

The prognosis is doubtful; improvement has been so small and so slow, that I take a distinctly serious view about the case.

The most hopeful treatment consists in change and rest, good food, good air, peace and contentment, arsenic and strychnine.

Lately she has been taking moderate doses of Pot. Brom., with distinctly small doses of Liq. Arsen. (m $\frac{1}{2}$), and they have done her some good.

Reviews.

Traumatic Separation of the Epiphyses: A Practical Treatise on. By J. Poland, F.R.C.S., pp. 926, royal 8vo., 52s. 6d. *The Skiagraphic Atlas.* By the same author, royal 8vo., 5s. (London: Smith, Elder & Co.)

These two volumes, though bound separately, must be considered as one whole, forming, as the author says, the result of many years' observation and work. It is hardly to be expected that the uninitiated will appreciate—even from the huge volume in which his labours are displayed, much less from these notes which, from the nature of things human, can scarcely do justice to so vast an undertaking—the difficulty of completing a comprehensive treatise on so neglected a subject, one on which the literature which does exist is scattered through many years, is often fragmentary, is naturally wanting in consecutive detail, and lastly by far the larger part of it has been written in another language than our own. This last fact must have seemed to many of those who have thought on these subjects, or have searched through the ordinary manuals for aid in the diagnosis or treatment of a difficult case, to have been hitherto a disgrace to English surgical literature—a disgrace which Mr. Poland has now once for all removed.

His exhaustive and protracted labours (for the introduction shows that his first interest was aroused sixteen years ago), can, we fear, scarcely be expected to have adequate pecuniary reward in a general sale of so large a work on so small a corner of surgical practice, rather will his reward be the satisfaction and renown of having produced the first book in the English language treating exhaustively with the subject, and by the knowledge that his work must be retained as a reference in every surgical library worthy of the name.

It would not be possible to deal in detail with all the points of interest both anatomical, pathological and surgical with which this volume bristles, to point out in this space the huge number of the authorities consulted, so we must be content by picking out for remark a few of the most striking which have forced themselves upon us in as prolonged a research through its pages as the Editor of the GAZETTE allowed.

The first section, Historical, is in its wealth of detail merely an index of what follows, passing from the fabled custom of the Amazons of separating the epiphyses of the male children, through the observations of Hippocrates, Ambrose Paré, Marcus Aurelius Severinus, a number of French surgeons, to Astley Cooper's views, followed by the curt dismissal of the subject by Syme in his Principles of Surgery to the two Englishmen who in later years had paid adequate attention to the subject — Jonathan Hutchinson, père et fils.

The Anatomical section will be that to provoke most general interest, as it should prove the authority for consultation by men reading for the First F.R.C.S. and the various First M.B.'s of the Universities. This section has been much enhanced in value by some fifty most excellent skiagrams by Mr. William Webster, which is, we believe, the first effort to elucidate and confirm by such methods the question of the dates of appearance of the ossific centres for purely anatomical purposes.

Some twenty of these plates dealing with the development of the carpus, which we are sure will make the Guy's skiagraphic department green with envy, amplified by a resumé from the narrative of the anatomy of those structures forms the appendix in the shape of the Skiagraphic Atlas. This is a hint to embryologists to make this system general throughout the body. Scanning this chapter through we were much struck by the suggestion of the varying date of the appearance of ossification in the successive children of a family.

The pathological section, both experimental and anatomical, cannot be dealt with piecemeal, so passing through the section in general diagnosis we come to the chapter which, if any were needed, would be a justification for the whole volume on Prognosis and Results—a few of which latter, deformity, impaired movement, arrest of growth, necrosis and pyæmia, show that in the past treatment has not been so successful that we can any longer neglect the opportunity for further knowledge.

The author next deals with each epiphysis in detail, to the extent of some 750 pages, and in these manages to include a wide view of the surgery of the parts both in differential diagnosis and complications such as fractures into joints: we can only here draw attention to a few points in connection with the more common ones,

* *St. Bartholomew's Hospital Journal.* Sept., 1897.

viz., upper epiphysis of humerus (120 cases), lower of radius (112 cases), epiphysis of head (35), and lower end of femur (125), which form the larger sections of the author's 700 cases of this injury in the long bones.

We have read the section on separation of the epiphysis of the humerus with much interest, and have been forcibly struck with its comparative frequency from traction on the arms of infants, a foolish and dangerous habit still as popular in the enlightened educated classes as in the poorer. Other tit-bits of information are the author's insistence in differential diagnosis from dislocation of the shoulder that separated epiphysis replaces the former in children, and the résumé of cases in which inability to reduce deformity in recent cases, or maintained deformity in old cases, has been successfully treated by operation by French, German, and American surgeons—a section which says little for English progress.

The author's firm conviction, too, that the complication of dislocation of the shoulder must be treated primarily, if necessary, by open procedures, and not left till after union of the epiphysis is very pleasing, and an emphatic opinion on a point on which many authorities hesitate to pronounce an unchangeable verdict.

No less interesting and complete is the chapter on the lower epiphysis of the radius, the differential diagnosis, treatment and prognosis of which is probably the most generally important portion of the book. It is curious to notice the frequency in the recorded cases of this section of associated head injury.

The treatment of this section is perhaps open to criticism, for the author says, "there is marked contrast in the rapid union of separation in comparison with that of fracture in older patients"—in opposition to which we find "a splint should in most cases be applied for eighteen to twenty days"—and "after the tenth day the fingers at any rate are freely moved"—methods which we should be inclined to expect would cause some fixation of the wrist-joint.

In view of much that has been lately written in surgical periodicals of and cases which have been seen at Guy's, the chapter on the epiphysis of the head of the femur will without doubt be regarded as authoritative judgment. Mr. Poland quotes thirty-five cases of this lesion, here differing from Mr. Jonathan Hutchinson, Junr., who, in his Jacksonian Prize Essay of 1891, evidently regarded this as a very rare injury, recording Bousseau's as probably the only authentic case, although he mentioned records of nineteen others possibly of this nature.

Mr. Poland quotes Hilton as diagnosing this lesion twice, though Hutchinson in 1866 regarded it "as at best a plausible guess," while adding that the many recorded cases should now enable us to make an accurate diagnosis. He evidently adds as a caution Hamilton's statement that "we have as yet no means of absolutely determining the symptoms." The symptoms of recent cases are given in detail, but we have sought in vain for the detailed signs of and deformities resulting from old separations, though they are briefly suggested under the differential diagnosis from hip disease. Mr. Poland makes no reference to the diagnosis from incurvation of the neck of the femur (coxa vara of Whitman) of which so much has of late been written, and from which, with hip disease, the diagnosis of old separation must be of great importance. Are we to conclude that the author regards coxa vara as mistaken separation, or should we classify it with fractures of the neck in the child with regard to which he quotes Whitman at some length. After all this, treatment is dismissed in three pages, with no mention of the proceedings of Lorenz, Hoffa and Laue under similar circumstances. Poland records Hoffa's division of the neck for deformity, but it would seem that the possible alternative of Gant's osteotomy has escaped his observation.

The chapter on separation of the lower femoral epiphysis is, in our opinion, the best in the book, the classification of the various deformities is most clear, and each has excellent explanatory plates; most important of all is the review of the various complications which are the chief danger to this lesion, and one is struck by the recorded frequency of septic complications in even simple separation—as a result of which the author quotes Harte, recording nearly half of sixty cases ending in amputation. Treatment here is complete and full, and the author deals most ably with the question of primary and secondary amputation in compound cases.

There are many other points in this book to which we have been unable to refer; the whole is admirably arranged, exquisitely printed in large type on good paper. One of the few possibly improvement would be the classification of the subjects to be dealt with in each chapter as a heading at its beginning, and a larger type for the chief divisions in the text as adding clearness in chapters of such length. The numerous wood-cuts to which we have above briefly referred are one of the most fascinating and accurate features of the book. F.

Appointments.

CIVIL.

EVISON, F. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Second District of the North Witchford Union, *vice* F. O'Connor, L.R.C.P., L.R.C.S.I.

EYRE, JOHN, M.S., M.D. Durh., L.R.C.P. Lond, M.R.C.S., has been appointed Honorary Ophthalmic Surgeon to St. Mary's Children's Hospital, Plaistow.

RYLE, REGINALD J., M.A., M.D. Oxon., M.R.C.S. Eng., has been appointed an Honorary Assistant Surgeon for the Sussex Eye Hospital.

STARLING, E. H., M. D. Lond,, has been appointed an Examiner in Physiology at the University of Cambridge for the current academical year.

WEBBER, H. W., M.D., M.S. Lond, L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Provident Department of the Plymouth Public Dispensary.

NAVAL AND MILITARY.

SURGEON ROBLEY H. J. BROWN, R.N., has been appointed to the *Alacrity*, and SURGEON F. D. LUMLEY, R.N., to the *Edgar*, China Squadron.

SURGEON-CAPTAIN AUGUSTUS KINSEY-MORGAN, M.D., 1st Dorsetshire Volunteer Artillery, is promoted to be Surgeon-Major.

Sport.

Rugby Football.

GUY'S AND ST. THOMAS'S v. CARDIFF.

Played at Cardiff on Saturday, October 29th.

The Cardiff team was at full strength, and the inclusion of Selwyn-Biggs at half was a great point. The Hospitals were deprived of Sime through illness. For the first few minutes the Medicos had the best of the play, but Cardiff soon showed their superiority, especially behind the scrums. After about quarter of an hour's play their three-quarters got well away and scored far out; the kick at goal failed. Within a few minutes they again scored, but the referee disallowed the try. However, this did not make any real difference, as Sweet-Escott got in behind the posts by a beautiful dodgy run. At this point of the game Cardiff were having by far the greater part of the play. Ayre-Smith had a nasty accident and had to leave the field for about ten minutes. A splendid drop goal by Hussey brought the score to 12 points, and as another try was registered before half-time, the Hospitals were in a sorry plight.

After half-time the game was much more even, and neither side held any material advantage. For several minutes we were close on the Cardiff line, and the referee actually gave a try, but altered his decision, which was obviously incorrect. Cardiff scored twice through their three-quarters, but this was due to the weakness of our back division—or rather to the strength of the Cardiff International outsides. Result: Cardiff 1 goal, 1 drop goal, 4 tries; Hospitals nil. Team:—

HOSPITALS.—A. C. Ransford (back); F. L. Rae, L. F. Hanbury, F. D. S. Jackson and J. Lewis (three-quarter backs); F. C. Wetherell, M. C. Wetherell (half-backs); R. C. Mullins (capt.), D. H. Trail, A. A. Smith, J. F. Cunningham, T. P. Thomas, J. C. Thompson, H. A. Cutler, T. W. Downs (forwards).

REMARKS.—It is very gratifying to Guy's that twelve of the sixteen men chosen, should hail from her walls. Our defeat was largely due to the weakness of our centre three-quarters. This was not entirely their fault, as neither are "flyers," but they should both remember that Soccer kicks are very dangerous, and only to be attempted on very exceptional occasions.

Ransford, at back, was good; he should be more careful to find touch. His tackling was good, but wasted, as he always had two men to manage. The wings tackled well, but had no chance of attacking. At half the Wetherells were quite good and played well together.

The forwards were an even lot, but did not pack well. They should form lower and get their shove on quicker. All should remember that the ball is meant to "work," and that it should never be left untouched—except for offside. Each forward should do his share of work in the scrum, and when the ball is at his feet in the scrum, either "heel" or "wheel," but never be afraid of doing something with it. The following up could be much better and less spasmodical.

GUY'S AND ST. THOMAS'S v. PENARTH.

Played at Penarth on Monday, October 31st.

Penarth kicked off and pressed for some time, when a stupid Soccer kick gave them a good opening for a try; this was not converted. The Hospitals soon equalized through a try by Jackson after a good bout of passing. Thompson kicked a magnificent goal. Penarth rapidly added two tries, the first being pure luck, as the ball touched one of our men, and their forwards being right upon our goal-line, fell on it.

F. C. Wetherell dropped a very neat goal soon after half-time; this made the scores equal. A splendid dribble along the touch-line followed by a clever run by M. C. Wetherell put us ahead, and just before time Hanbury again crossed.

Final score:—Hospitals 1 goal, 1 drop goal, 2 tries Penarth 3 tries.—15 points to 9. Team:—

HOSPITALS.—A. C. Ransford (back); F. L. Rae, L. F. Hanbury, F. D. S. Jackson and J. Lewis (three-quarter backs); F. C. Wetherell, M. C. Wetherell (half-backs); R. C. Mullins (capt.), J. F. Cunningham, K. V. Trubshaw, T. W. Downes, J. C. Thompson, H. A. Cutler, A. A. Smith, D. H. Trail and T. P. Thomas (forwards).

REMARKS.—The feature of the game was the magnificent form—especially in defence—shown by Trail, who was by far the best forward on the ground. Cunningham and Trubshaw also played well. The forwards did not play with as much dash as against Cardiff; this was probably due to the hard game two days before. M. C. Wetherell was in grand form and has improved greatly this year. Hanbury played in the centre, an arrangement which strengthened the three-quarter line. Rae had very few opportunities. The game was very scrappy—and there was too much haranguing and arguing. This should be stopped once and for all.

GUY'S A. v. MARLBORO' NOMADS A.

Played at Honor Oak Park on October 22nd, resulting in a win for Guy's by 3 goals to nil.

Tries by Pye-Smith, O'Brien and J. T. Hicks, all of which were converted by J. M. Brydone. Team:—

GUY'S.—E. N. Jupp (back); F. J. Pearce, A. O'Brien, G. Evans, J. T. Hicks (three-quarter backs); J. M. Brydone, C. T. Pye-Smith (half-backs); H. V. Bagshawe, R. C. Lawry, D. P. Watson, C. J. Pinching, E. H. B. Milsom, M. D. Wood, L. Moiser, G. Nunn (forwards).

GUY'S "A" v. OLD MERCHANT TAYLORS "A."

This match, played at the Old Deer Park, Richmond, on October 29th, resulted in a win for Guy's by 2 goals and 1 try to nil. The game was most interesting throughout, the ball only reaching the three-quarter line on two or three occasions during the whole game. Guy's kicked off against the wind, but the ball was soon returned into their twenty-five, where for some time the hospital was pressed, but some good work by the forwards brought relief. Several scrums now took place, and Guy's gradually worked their way towards their opponents' goal-line, where, from a forward rush, Milsom scored.

Brydone made a good attempt to convert but failed. Half-time arrived with the score unaltered.

On restarting, with the wind in their favour, Guy's were soon pressing, and from a smart piece of play by Dilkes and O'Brien the latter scored between the posts; Brydone converted. On resuming, the Old Merchant Taylors' forwards made a determined rush, and several hard scrums followed on the Hospital goal-line. They were unable to score, however, and the ball was soon carried to half-way. Here, O'Brien, receiving the ball from a scrum, made a very fine drop at goal, which only just fell short. Play now became a little more interesting, the forwards rushing the ball in good style, and from a pretty piece of dribbling Lawry scored. Brydone was again successful with the kick. Soon after, no-side was called.

The forwards played a hard game, but they must learn to heel the ball out much more smartly; repeatedly the back row prevented it from coming out. At half, Jackson was greatly missed. Lowisson kicks and tackles well, but seldom passes. At centre, O'Brien played a good game, and should turn out a useful three-quarter. Every member of the team is expected to put in at least one run a week at Honor Oak. Team :—

Guy's.—H. G. Rashleigh (back); J. H. Wilkes, A. O'Brien, G. Evans, F. J. Pearce (three-quarter backs); J. M. Brydone, M. G. Lowisson (half-backs); G. Shorland, H. V. Bagshawe, R. C. Lawry, A. H. E. Wall, D. P. Watson, C. J. Pinching, E. M. B. Milsom, A. R. Thompson (forwards).

GUY'S 3RD XV. v. BATTERSEA.

At Honor Oak Park on Saturday, October 29th, resulting in an easy win for the Hospital by sixteen points to nil. Owing to the morning's rain, the ball was somewhat greasy, but a fairly fast game was seen. In the first half Jarvis scored from a penalty kick, and Parrott ran in from a loose forward rush, but the place kick went wide. After change of ends Wilcombe made a good run and crossed the line between the posts, but being tackled lost the ball. Reinhold, however, got up in time to complete the try, and Jarvis converted. Before the finish Hicks fielded the ball smartly, and dashed over in the corner. Gater with an excellent kick put on the extra two points. Team :—

Guy's.—R. P. Budger (back); J. T. Hicks, B. Reinhold, C. R. Ring, C. F. Wilcombe (three-quarter backs); J. W. Jarvis, G. Hayes (half-backs); A. W. Gater, G. Viner, O. Digman, H. McD. Parrott, H. D. Smart, B. Glendining, W. W. Jones, M. A. Collins (forwards).

Remarks.—The forwards packed well, and always got in first shove, but no one ever attempted to get the ball in the scrum, a defect which should be remedied. The halves, especially Hayes, saved well, and Jarvis made excellent attempts to open out the game. Both wing three-quarters were good. Reinhold in the centre played a finished game, and should come on a lot. The full back tackled splendidly, but was rather slow.

Association Football.

GUY'S v. OLD HARROVIANS.

The First XI. opened its season's matches at Honor Oak Park on Saturday, October 15th, the old Harrovians being their opponents. Not much was expected of the the Hospital team, and certainly they did not go beyond expectations. Guy's previously have always managed to defeat the Old Boys pretty easily, but this time the tables were turned, the result being a 5 goals to 4 defeat of the Hospital.

It does not seem that the expected and hoped for goal-keeper, backs, and forwards have turned up in profusion, for judging by Saturday's form alterations in the several positions would be beneficial. Germain, at centre half, shows he has good football in him, and the two goals he scored were clean drives, and point to a good knowledge of the game. The inside left, Norton, another fresher, has some good football in him, and will be better when he gets used to his partners and has more confidence in himself.

The game, played as it was in a drizzle and on a slippery ground, is not worth commenting on, but a few remarks *re* the players may not be out of place. Smith, as a goal-keeper, was not a success, and if he is to keep his place must show very different form. Smith's kicking was weak, and he showed little adaptability for gathering the ball, and that making full allowance for its slippery state. Robson, at back, was slow, but otherwise worked hard. Matthews was, on the day, quite off colour. Of the halves, the freshers, Germain and Hall, were perhaps the best, but they all worked hard to feed a ragged front rank, and to cover the slips of the backs. Of the forwards, Wiltshire was the only one to show glimpses of his true form, the goal he scored in the second half being quite class. Gray and his new partner worked hard at times, and from that wing came the only sign of combination shown during the game. Wing players must remember that as they approach their opponent's goal, that it is to the centre forward that their efforts must be made to give the ball, not to their partners, placed as a rule at oblique angles to the posts. The fewer words said about the play, or attempts of the right wing the better, both were totally untrained, and both played like it. Team :—

Guy's.—F. M. V. Smith (goal); W. M. Robson, J. Matthews (backs); R. W. B. Hall, H. B. Germain, W. P. Shepherd (half-backs); P. S. Mandy, —. Roberts, H. P. Wiltshire, —. Norton, A. C. H. Gray (forwards).

GUY'S v. BALHAM WANDERERS.

This match was played at Honor Oak Park on Saturday, October 22nd. Playing against the wind in the first half Guy's had the best of the game and Lacey scored after a save by the Balham goal-keeper. Several easy chances were missed before half-time.

In the second half an opposing forward ran through and gave Smith no chance, making scores level. The Hospital

then attacked and Dent, Wiltshire, and Norton, each obtained a goal, Wiltshire's being an exceptionally fine shot. The Balham goal-keeper played finely and kept down what would otherwise have been a heavy score. In the last few minutes mistakes on the part of our backs let in Balham, who scored twice, and the game finally ended with the scores 4—3 in our favour. The halves were the best part of our team, and Wiltshire and Norton were best among the forwards, who were very weak in front of goal. Team —

Smith (goal); Robson, J. Matthews (backs); Hall, Gorman, Sheapard (half-backs); Dent, Lacey, Wiltshire, Norton, Grey (forwards).

SURREY SENIOR CUP—FIRST ROUND.

GUY'S v. CHERTSEY.

This match was played at Honor Oak on Saturday, October 29th, resulting in a win for the Hospital by 7 goals to nil. Owing to the Soccer ground not being regulation width, the Rugger and Soccer grounds were temporarily changed. Guy's won the toss and almost immediately started to press, the forwards playing very well together. Goals were soon obtained in quick succession by Dent, Norton and Wiltshire. Chertsey in the first half were only really dangerous once, when they obtained a corner, nothing, however, resulting from it. Before the end of the first half Norton and Wiltshire again scored, the latter's shot being a most excellent one.

The second half was much of a repetition of the first, Guy's having by far the most of the game; two more goals were added, Wiltshire being responsible for one, whilst Gray scored the other from a splendid centre, the ball glancing off one of the opponents into the goal. Chertsey very nearly scored in this half, one of their forwards getting clean away; he was, however, smartly pulled up by Hall.

Although Chertsey were beaten by so much they cannot lame their goal-keeper, who scored splendidly on more han one occasion. It is the best game our forwards ave played this season. Mandy and Wiltshire especially deserving mention. Germain played a good game in the rst half; he tires rather quickly, which is a great pity. Hall played far and away his best game this season and fed his forwards well. Matthews was hardly as fit as he might have been, but it is in no wise his fault as he has been reading for his final. Although the team are to be congratulated on getting through the first round, they will have to work hard if they intend so get through the next. Team:—

Guy's.—F. M. V. Smith (goal); W. M. Robson, J. Mathews (back); R. W. B. Hall, H. B. Germain, N. P. Shepherd (halves); P. S. Mandy, H. L. Dent, H. P. Wiltshire, L. Norton, G. C. H. Gray (forwards).

GUY'S 2ND XI. v. R. M. A. 2ND XI.

After a good game, Guy's lost this match at Woolwich, by 1 goal to nil.

During the first half, we played with the wind, and had by far the best of the game. Several corners were conceded, from two of which Peall nearly scored, hitting the post on both occasions.

In the second half the play was very even, and we should have scored but for the bad shooting of the forwards. Just before time Franklin miskicked in front of goal, from which they easily scored. Guy's played up hard for the remainder of time, and Lacey hit the post with a good shot, but we were unable to score. Team:—

Guy's.—F. M. V. Smith (goal); J. Matthews, V. Goulding (backs); P. P. Cole, D. G. Greenfield, A. Germain (half-backs); S. Sams, H. K. Lacey, P. A. Peall, L. J. Hughes, P. W. L. Camps (forwards).

GUY'S 2ND XI. v. CHRIST COLLEGE.

This match was played at Finchley, and resulted in a draw of 2 goals each. The second included several new men, and there was consequently little combination. Guy's pressed hard at first but shot badly, although they scored about ten minutes from the start. Play was more even, and Finchley scored with a good shot from half. Our forwards then infused more vigor into the game, and Hughes, evading the backs, put on a second goal for us.

In the second half we were hard pressed at the start, but play was then transferred to their half. Their centre forward, however, out paced our backs and equallized. Our forwards attacked hotly at their end, although Camps was injured, but could not give us the lead. Malin defended well in goal. Team:—

Malin (goal); H. J. Butler, V. Goulding (backs); P. P. Cole, D. G. Greenfield, J. R. Ash (half-backs); T. W. L. Camps, H. K. Lacey, B. Rust, L. J. Hughes, P. A. Seale (forwards).

GUY'S 2ND XI. v. FURZEDOWN PARK.

Played at Tooting on Saturday, October 29th, and resulted in a win for Guy's by six goals to one. The game was of the poorest description throughout. Goals by Lacey, Rust, and Greenfield, two each. Team:—

J J. Gardiner (goal); R. Franklin, V. Goulding (backs); P. P. Cole, D. G. Greenfield, A. Gromitt (half-backs); P. A. Peall, L. J. Hughes, H. K. Lacey, B. Rust, P. W. L. Camps (forwards).

Marriages.

CREAK—CROCKETT.—On October 12th, at St. James's, Kidbrooke, Alexander Brodie Creak, L.R.C.P. Lond., M.R.C.S., second son of Captain Creak, R.N., Blackheath, to Mary Frances, elder daughter of Edwin A. B. Crochett, of Ashley Gardens, S.W.

WELLS—McLEOD.—On 28th September, at the Parish Church, Croydon, Charles Henry Wells, of Guy's Hospital, to Annis McLeod, daughter of the late Joseph Henry McLeod, of Paisley.

Ed.—H. L. E.

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Calendar of Coming Events.

November.

Sat. 19.—Messrs. Howse and Jacobson's take-in; Drs., H. St. A. Alder and A. E. Cawston; Cl., K. B. Alexander.
1.15 p.m., Clinical Lecture by Dr. Hale-White.
G.H.R.F.C., I., Bedford, away.
II., Beckenham, away.
G.H.A.F.C., I., Idlers, home.
II., Crystal Palace E. S., away.

Mon. 21.—Final Fellowship Exam.

Tues. 22.—Cambridge Third M.B. Schedules to be brought to the Office for signature.

Wed. 23.—1.30 p.m., Clinical lecture by Mr. Howse.
Messrs. Davies-Colley and Symonds' take-in; Drs., C. A. D. Bryan and A. W. Talbot; Cl., A. H. Carter.

Thur. 24.—G.H.M.P.U., Address by the Rev. A. W. Gough, M.A.

Sat. 26.—1.15 p.m., Clinical lecture by Dr. Hale White.
G.H.R.F.C. I., Old Merchant Taylors, home.
II., St. Bart.'s, away.
G.H.R.F.C., I., Old Forester's, away.
II., ditto home.
G.H.P.P.S., Paper by W. T. Milton.

Tues. 29.—Mr. Rowell's Demonstration on Anæsthetics at 12.0 noon.

Wed. 30.—1.30 p.m., Clinical lecture by Mr. Howse.
Messrs. Lucas and Lane's take in; Drs., W. G. Stewart and D. P. Watson; Cl., G. C. Owsley.
G.H.R.F.C., I., Royal Engineers, away.

December.

Thur. 1.—January Appointment List opened.
G.H.M.P.U., Address by Rev. G. R. Thornton, M.A.
Last day for names to be sent in for First, Second, Third M.B. Camb. Exams.

Sat. 3.—1.15 p.m., Clinical lecture by Dr. Hale White.
G.H.A.F.C., I., (With St. Thomas's) Blackheath, away.
G.H.A.F.C. II., Beckenham, home.
G.H.A.F.C., I., Crouch End Vampires, home.
G.H.A.F.C., II., Kenley, away.

Guy's Hospital Gazette,

NOVEMBER 19, 1898.

Intestinal Obstruction—Two Cases.

CLINICAL LECTURE BY DR. PYE-SMITH.
October 22nd, 1898.

GENTLEMEN,—We have recently had two cases in the clinical wards of great interest and great anxiety—cases of Intestinal Obstruction—one of them with a successful termination, thanks to surgical skill; the other one has proved fatal. If, with all the improvements in diagnosis and in operative methods which you have, compared with what I remember thirty years ago, you should have as good a result, if half your cases of intestinal obstruction recover, you may well be thankful. Now and then, under various modes of treatment, we do see a cure effected, and there is nothing more satisfactory than to see a fellow creature rescued from the imminent peril of this terrible disease. But, for myself, I confess that this has been the exception. I hope you will be more fortunate.

The two cases I shall speak of illustrate two very different forms of obstruction. Taking an anatomical basis, we may arrange cases of intestinal obstruction as follows:—

i. Let us begin with the least complicated and least dangerous kind of obstruction—*impaction*. Remember there is no sharp line to be drawn between constipation and obstruction. Supposing a woman has a gall-stone which ulcerates its way into the gut, passes down the small intestine, and sticks in the gradual narrowing which takes place between duodenum, jejunum and ileum, that impaction is certainly an intestinal obstruction, a very serious one, and often fatal. But, supposing a woman has for a long time taken food which leaves much residuum, and that this has accumulated until at last a part of the large intestine is completely blocked with scybala. Cases have been known where the outer husk of corn has done that, or cherry stones, or masses of magnesia taken as medicine. I once saw a case in

which such a mass was made up chiefly of needle-like things which looked like leaves of a fir-tree, but when examined chemically and microscopically I found the obstruction to consist of fish-bones, such as form the dorsal fins of soles. In some cases of very chronic constipation, scybala have been removed per rectum which have caused as complete obstruction as a solid gall-stone will produce.

ii. Another kind of obstruction, that known as *invagination* or intussusception, is also due to impaction, but the plug is here not a "foreign body," but one part of the bowel which has passed into another; moreover, besides obstruction there is here strangulation in addition

iii. Next come three groups which clinically are closely connected. First, where there is *external pressure*. For instance, I remember a woman who had complete obstruction, and on examining per rectum I found the rectum was stopped. One could not get the finger past the narrow part, and one could feel in front a heavy, massy smooth lump. On examining the abdomen and vagina bimanually it was obvious that a uterine growth had fallen back and squeezed the rectum, and produced complete obstruction. The uterus was replaced and the patient did very well. Again, I once saw an old lady who was apparently in good health, but was subject to constipation. There was considerable distension of the abdomen, and the rectum was empty and squeezed back by some great lump evidently external to it. On further examination it was plain that this was a case of ovarian tumour. Mr. Golding-Bird operated for this tumour, and the old lady recovered very well. These are examples of intestinal obstruction caused by external pressure. It is most common in the rectum, because the tumour will be resisted by the hard walls of the pelvis.

iv. Then there is a very important kind of obstruction, of which one of these cases I purpose particularly to speak of is an example, and which I think we ought to separate from the rest. In the Fourteenth Volume of our Third Series of Reports, the late Dr. Fagge showed that in the small intestines there is a kind of obstruction not infrequently met with, which resembles a stricture of the large intestine in its effect, but it is quite different anatomically. He called it *contraction with adhesions*. It is difficult to find a good word for it. Dr. Bristowe called it *traction*. The obstruction is first formed in the peritoneum; the peritoneum is thickened, and the intestine is flattened and pulled and dragged, and sometimes it will twist or kink, and by this means the obstruction is at last complete.

v. True *stricture* is very distinct from this anatomically. It is like stricture of the œsophagus or urethra, a narrowing by thickening of the walls, and in that way the calibre is diminished, although it is very seldom completely obstructed. In one of the cases which I am particularly going to speak of, I passed the finger right through the obstruction.

vi. Lastly, comes that form of intestinal obstruction called *strangulation*. Mr. Bryant particularly has insisted on the distinction between obstruction and strangulation. In obstruction there is no passage for the fæcal matter; in strangulation there is no passage of blood through the blood vessels of the part. If you have an incarcerated hernia you may have complete constipation, but the symptoms are not severe or immediately dangerous; but, if you have a strangulated hernia, not only cannot the fæces pass through the affected portion of the intestine, but the blood cannot get through either, and very soon you have softening and gangrene, which is excessively dangerous.

Obstruction is present in all the conditions I have mentioned, except sometimes in invagination. At some periods of invagination there may be fæces passed. With this partial exception all the six groups are really cases of obstruction. But only three of them are accompanied by strangulation. Invagination, if not cured, ends in strangulation; the flow of blood through the part is interrupted, and gangrene follows. Then those dragging contractions that I spoke of may lead to strangulation. And thirdly, volvulus, or a loop of intestine passing through a hole in the mesentery, internal hernia.

I.—My first case is an example of what I have called dragging from adhesions and contraction.

The patient was a boy about fifteen, who was brought in before I took the ward, in the end of the month of August. Some one, before the present clinical assistant, made an excellent report of the case, from which I read. The patient is said to be "a healthy-looking boy," but he was thin and pale when I saw him. "There is no history of phthisis; his father died from an unknown cause, and his mother is still alive and healthy." Probably his father died of phthisis. You ask why? His father must have died when still young, and what do young married people die from? If a man dies from an accident, you will hear of it; if, for

instance, he is run over in the street or killed by a train, it is always remembered. If a man has died from poison, if after an operation, you will probably hear of that. If he has died of pneumonia, then you would have been told of "congestion of the lungs," or at least, of a short illness. If of enterica, that it was from "fever." The most likely cause of death in a young man is phthisis; and if you hear that a young woman died "after child-birth" this is still more likely.

This boy is said to have been "always healthy." Many people are said to be healthy, and when you investigate their history you find perhaps that they have been ill all their lives. I think this boy was delicate from the first, and possibly inherited tuberculosis.

He was taken ill with pain and vomiting, at first without complete constipation; but there was difficulty in getting the bowels to act, and that continued for ten days. He ought to have been brought to the hospital earlier. For ten days this boy suffered from the three main symptoms of intestinal obstruction, namely, pain, vomiting, and ingravescent constipation, first moderate, but becoming more and more complete, until at last not even flatus could be passed.

On admission, his abdomen was found to be distended with gas in the bowels—tympanites. There was visible peristalsis, also an important symptom. It always means the attack has lasted several days, probably for more than a week. Here the disease was running a subacute ingravescent course. An attack is said to be remittent when the symptoms are at first acute, then relax, and then again become acute; chronic when it has been gradual in onset and long in course; and ingravescent when at first chronic it becomes at last acute—the most common course in intestinal obstruction.

There was dulness, localised in the right side of the abdomen. The abdomen moved very little upon respiration. The hepatic dulness was absent. This sign might mean there was gas in the abdomen from perforation. But that is rare, and in many cases, as in this, the liver is pushed upwards and backwards by the distended bowels, so as to leave only a narrow line of dulness between the lung and the colon.

Looking back upon the case, I think one may form an epicrisis, *i.e.*, a diagnosis after the event. The patient was a boy, thin and pale, with possibly a tuberculous history. His illness did not begin suddenly, like a strangulated hernia, but had lasted ten days, and was ingravescent, like an incarcerated hernia. The disease could scarcely be *stricture*. That is a disease of middle and later life, and equally improbable would be compression by a tumour or impaction of a gall-stone or of fæces, or of a foreign body. He might have had *invagination*, but there was none of its special symptoms present, no tumour and no hæmorrhage from the bowels.

The symptoms were not acute enough for strangulation by a band; in ten days he would have been either dead or cured. So by exclusion we come to a diagnosis of dragging and contraction of the small intestine from external adhesions. That is just what you find at his age associated with local tuberculous peritonitis.

I remember a page-boy not unlike him, about thirteen or fourteen years old, who was sent into the hospital, thin and pale and with much the same symptoms as our patient. I advised an operation, and we found the cause of the obstruction to be just the same. The small intestines were dragged down and tethered to the spine by thick adhesions, and there was a suppurating mesenteric gland. The surgeon who operated did not go further; we were not so bold then as now. The wound was sewn up again, and after death we found tuberculous disease of the abdomen.

In our present patient the conditions were very similar. He had a tuberculous lymph-gland and adhesion of the mesentery puckering and "kinking" the small intestine. After opening the abdomen Mr. Symonds liberated the fold of ileum, removed the caseous gland, and closed the wound after the peritoneum had been washed out. The boy made a good recovery and has now gone to a convalescent home. A most satisfactory result and a great credit to surgery.

But remember the difficulties of diagnosis, the dangers of the operation, and the still greater danger of doing nothing. If I had seen the case before operation I should have only given the guess (or *perignosis*, as Dr. Moxon used to call it) that looking at the age and sex of the patient, and at the course of the disease, most probably the patient had contraction low down in the small intestine, perhaps from local tuberculous inflammation. Opening the abdomen to find the seat of the disease is a very dangerous thing to do. In this case it met with success, and the boy's life was saved, but the operation is always a very grave one, and the result very unsatisfactory.

Even in this case, after opening the abdomen it took a long time to find which parts were more distended than others; coil after coil had to be passed outside the abdomen, and the search was patient and tedious before the seat of obstruction could be reached, the adhesions

severed and the suppurating gland removed. Then the intestines had to be replaced after being kept warm and carefully covered from infection, and the whole peritoneum to be washed out.

II.—Our second case is an example of *stricture*, almost always cancerous stricture, for stricture caused by a cicatrix after dysentery, or a tuberculous ulcer, is very rare, and after enteric fever is almost unknown. Cancer is a disease of the large intestine, most common in the rectum, next in the sigmoid and descending colon, next in the transverse colon, and least frequent in the cæcum. It leads finally to obstruction, but this may not result for a long time. The patients will sometimes come to you not for constipation, but for diarrhœa. Not long ago a man of sixty, an agricultural labourer, was sent up from Hampshire, who had been ill from "dysentery" for a long time. He looked haggard and pale, and on examining the rectum, as you should always do in such cases, I was not surprised to find there was cancer, easily reached, with no obstruction whatever.

But we were speaking of the more common effect of cancer, obstruction. This second case of intestinal obstruction is that of a man of thirty-one, a remarkably early age for cancer of the colon or rectum. He had been ill a year. He was a well-developed, muscular, and apparently healthy man. He had had no previous illness. He had lived a sober industrious life in the country, was married, and had two healthy children. About a year ago he began to suffer, first, after a strain caused by lifting a great weight. He dated all his illness from that. Now, here is a case where the history may mislead. He went back to his work, and worked on to the end of the year with wonderful fortitude, suffering frequently from severe abdominal pain and increasing weakness. When he came in he did not look wasted, pale, or sallow, but was still muscular with a good healthy complexion. He had no apparent cachexia. He suffered, then, from constipation, severe pain, from loss of strength and flesh, and on one occasion he had passed blood—an important symptom. Finally, only a week before he came in, he could not get his bowels open at all, and began to vomit.

As soon as he came in it was obvious that he was desperately ill, but, as often happens, the severity of his symptoms made diagnosis difficult. I did not see him when he was brought in, but I was told there was a difference of opinion whether it was a case of obstruction at all. The poor man came up hardly able to talk, and vomiting constantly, and all the account you could get from his friends was that it all came from a strain.

The case was admitted as one of acute peritonitis, which causes constipation, and is accompanied by pain, by tympanites and very often by vomiting. You may easily mistake peritonitis, caused by strangulation, for primary peritonitis, of which the constipation is only the effect, and acute peritonitis may have been due to a perforating gastric ulcer. I have no doubt the rectum was carefully examined. If a tumour or stricture had been found there, then colotomy would have been the proper treatment. But the disease was far beyond the reach of the finger; it was up in the transverse colon.

Laparotomy was performed, and with little trouble Mr. Dunn came upon a tumour which touched the transverse colon and hepatic flexure on the one side and the pyloric part of the stomach on the other. If you had seen it I think you would have said, "that is a gastric cancer which has opened in the colon and caused a gastric fistula."

What could be done was hard to say. The entrance of fæces into the stomach from the colon caused stercoraceous vomiting, and such a condition as was really hopeless. But Mr. Dunn opened the cæcum, and by that means got another vent for the fæces. As a result the horrible fæculent vomiting which had taken place was stopped. The patient lived about a day after the operation; and having his stomach washed out with warm water seemed to relieve him more than anything else.

As I said, the diagnosis was obscure, partly because the history was not known, and partly because he came in so ill.

Towards the end all cases of obstruction grow alike, and that applies to diseases generally. As we get near to the close of a journey the roads all fall into one, and so the paths to death converge as they near their goal. In the last stage of abdominal, or cerebral, or pulmonary, or cardiac disease, the symptoms are not peculiar to one kind, but to abdominal or cerebral disease generally. The best thing would have been for this patient to have come in long before the severe symptoms came on, at least a fortnight before he entered the hospital, and then a diagnosis might have been arrived at, and relief might have been given by a right lumbar colotomy.

Post-mortem.—Curiously enough, we found after all that it was not a cancer of the stomach opening into the colon, but a cancer of the

colon opening into the duodenum, just beyond the pylorus. I thought it a very rare thing which ought to be kept for the museum; but we have a specimen there already, and on looking up my notes I find that one case of the kind occurred in a patient of my own some time ago.

This is an example of a bad result from stricture of the large intestine; but, happily, one often meets with good results. I will tell you of three. Several years ago I saw an old lady of, I think, sixty-three, who was otherwise healthy, but had for some time been getting more and more constipated. At last nothing would pass, neither fæcal matter nor flatus, and the abdomen became much distended. She had not much pain, the symptoms were not severe, but there was complete obstruction. The rectum was empty and "ballooned." Taking her age and sex into consideration, one judged that it must be stricture of the colon, and from the greater bulging on the left side, more probably of the descending or sigmoid colon than of the transverse colon. She had been seen by a very eminent physician, and by a very eminent surgeon. They discussed the case and both agreed that nothing could be done.

Yet it seemed to me that this case should not be allowed to go without some effort to treat it, and so I got Mr. Bryant to come down and perform left lumbar colotomy, which he did with the best results. The lady recovered, and I saw her at intervals for some years after.

Looking over cases of obstruction not long ago, I came upon this one, and I wrote to the family physician of this lady to ask if she was still living. I received a note the other day from him, in which he says she enjoys very good health, and is approaching her eightieth year. So that there is a life which would have been sacrificed without operation, but which was rescued and has lasted all this time.

You say, "What was it?" It can scarcely have been cancer. What it was we shall probably never know, but I have begged her doctor that, if it is possible, when the old lady is taken to her fathers, there shall be an autopsy. It may have been that what she was suffering from would not have killed her. I once had a patient in this hospital in whose case the symptoms pointed clearly to obstruction in the descending colon. The abdomen was greatly distended, and there was visible peristalsis. I begged him again and again to be operated upon, but he absolutely refused, until at last I thought he had gone too far. Then he wished us to do what we thought best. Mr. Golding-Bird opened the colon in the left lumbar region, and this gave him immediate relief. He recovered and went out of hospital in good health. The artificial anus never closed, but most often when the bowels were moved the fæces passed naturally through the rectum. With the result we were much pleased. But about a year after he left he came back to me, suffering from Bright's disease, and of this he at last died. Mr. Bird and I made an autopsy, and we found that the whole of the colon was perfectly healthy. What caused that complete obstruction who shall say? But such cases do occur now and then. Dr. Perry had a similar case not long ago.

I will give you another example; though I hope you will all see some of your own. About three and a half years ago, a woman of fifty-eight was sent up to me with the same series of symptoms; chronic constipation with gradually increasing pain and vomiting, complete obstruction for a few days, and at last tympanites with visible peristalsis. Again it was tolerably clear that the seat of the disease was in or near the sigmoid flexure, and that the local lesion was a cancerous stricture. She was elderly, weak, pale and thin, with a poor pulse. I felt sure she would die miserably if left alone, and that she could not stand a prolonged operation. I therefore asked Mr. Lane to give her relief by colotomy, and to attempt nothing more for the present. He performed inguinal colotomy, and there were unexpected difficulties which greatly prolonged the operation. She was very ill for a time, but got sleep from opium, and after two or three days recovered extremely well. A fortnight later, when she was eating and sleeping well, and her pulse was good, I asked Mr. Lane to come again. Then the patient was again put under an anæsthetic, the wound was opened, he excised the cancer and she went out quite comfortable.

Last July I had a letter from a niece of hers, to ask if she might come in again. She came in to Mary ward with bronchitis, and we saw a healthy looking artificial anus, and no sign of recurrence of cancer, so that she was happily cured of the intestinal obstruction, and also of its cause. She stayed in until her bronchitis had disappeared, and went home again well. She is now sixty-two.

Now, with respect to treatment generally, I would say, first, that if your treatment is to be either safe or efficient it must be founded on a diagnosis approximately fixing the seat and the nature of obstruction; and secondly, it must be early. The practice of opening the abdomen

in every case of supposed obstruction, and seeing what is the matter, would, I am persuaded, be injurious. Many such cases would not be intestinal obstruction at all and others would do so ill that an admirable operation would fall deservedly into disrepute, just as bleeding was abandoned throughout the civilised world because it had been indiscriminately used. An exploratory operation without diagnosis would mean careful inspection of the stomach and the whole intestinal canal, of the gall bladder, ovaries and bladder. Its mere length, even when it is founded on a hasty and contemned diagnosis, is a most formidable danger, and sometimes such difficulties and complications arise that it is almost a relief when the patient's death on the table cuts an inextricable knot.

An operation undertaken with a definite object, as the result of a determination of the seat and nature of the lesion, is an intelligent affair, the surgeon's skill is properly employed, and there is good prospect of saving the patient's life or at least of his dying of disease and not of treatment.

If, then, we have made a diagnosis, what will be our treatment in these several forms of obstruction? First, in impaction. If there is an accumulation of fæces in the rectum, no one would think of operating for that. It is to be treated mechanically with enemata, or by scooping out the solid masses in the rectum.

Obstruction by gall-stones has been successfully healed by operation; but the few cases I have had (for it is not a common form of obstruction) have done perfectly well when the patients have been put under opium and fed by the rectum. I am inclined to think that these cases are, as a rule, best so treated.

Invagination is a very dangerous condition, especially in the case of children. You may treat it by laparotomy, and many people, especially adults, have had their lives saved thereby. It is, however, a dangerous operation to perform on children. Another plan is to inflate the intestine. That often succeeds, but I have seen it fail again and again, and several of my cases, in which invagination was treated by inflation, had to be operated upon after all, and one regretted it was not done sooner. Some prefer large injections to inflation as a method of reduction. I have tried both and prefer inflation. But, however treated, invagination is a dangerous disease.

External pressure must be dealt with in the way I mentioned above. Redressing a retroverted uterus or tapping a prolapsed ovarian cyst for instance will completely relieve the obstruction they had caused.

Stricture of the large intestine is to be treated by colotomy. If you find you are able to excise the cause of the obstruction, well and good, that may come afterwards, if the stricture is well above the rectum; but the immediate object is to open the colon above the stricture, and by that means you will get very good results.

In cases of strangulation by a band, no doubt the proper treatment is, if you can find where it is, to cut down upon it and sever the band. But sometimes that is unsuccessful. I remember one case of mine in which the nature and the seat of obstruction were both approximately ascertained. Mr. Jacobson opened the abdomen at the place indicated; a band was found and divided, and everything seemed well, but all the symptoms came on again and the patient died next morning. *Post-mortem* we found the band divided, but it was not a "solitary band," in this case; there was another band six inches farther on. When you cannot form a diagnosis I do not say an exploratory operation is not to be undertaken, but it is a very dangerous proceeding, almost as dangerous as treating the patient medically.

Sometimes I have seen good results without operation in acute cases. I will give you an example. The patient was a tall, strong man, subject to gout, but otherwise in what would be called robust health. On coming home one day to dinner, and while standing by the fire talking to his wife, he was suddenly taken by a severe pain in the abdomen about the umbilicus. That position, unfortunately, does not help us in fixing the seat of the lesion; a strangulated hernia causes pain referred to the umbilicus. He went to bed and sent for his doctor, who gave him a dose of castor oil, but this only made the pain worse and did not open the bowels. Then he very properly gave up purgatives and tried enemata, which, however, were equally ineffectual. Late that night I was called in to see the patient, and found it to be a case of complete obstruction, with scanty urine, a great deal of pain, a slightly raised temperature, and the abdomen already getting full. Once or twice he had been sick, and his tongue was beginning to be furred. A dangerous case. Do not go on feeding patients in that condition; if they are sick do not put more food into the stomach. Let them take tea-spoonfuls of hot water, or a few drops of brandy, or a little cold tea. Do not let them drink a tumbler of water, or any considerable quantity of liquid,

and give the stomach rest. If the vomiting continues wash out the stomach, as we did with great relief in the case of stercoraceous vomiting from stricture of the transverse colon, which I mentioned. Next morning I met his doctor again, and we decided that, as there was no improvement in the symptoms, it was right to ask a surgeon to come in.

Now I had reasons for not desiring an operation in this case. I had known the patient for some years; he was gouty; a very slight accident—a strain, or bruise, or abrasion, took a long time to get well. Moreover, he was an intelligent, excitable, nervous man, and thought a great deal of his own case. My belief was that the obstruction was seated in the small intestine and not very low down; but its nature was obscure, and I thought it might be a displacement or incarceration which was not yet strangulated.

I determined to do something else, and sent for a surgeon of great experience and eminence, and who, I knew, would not be disposed to operate, but to do what I am going to tell you. He came, and after seeing the patient, we retired for consultation. "I do not think," he said, "that is a case for operation." I could not help saying, "No, that is why I sent for you." The result was that we quite agreed as to the method to be adopted, what has been called abdominal taxis.

First we gave the patient a large enema, setting the apparatus up on the top of a high wardrobe so as to get a fall of seven feet. With some cases of the kind this method succeeds; with others it does not, and it did not succeed in this. Then the patient was raised until the pelvis was higher than the shoulder, and shaken, so as to dislodge, if possible, any portion of gut that might have fallen over a band or got into a hole in the mesentery or omentum or into a post peritoneal pouch. So far, our efforts had not met with apparent success. This treatment was continued with great fatigue to us and to our assistants while he was skilfully kept under anæsthesia the whole time. Three times in succession we performed this abdominal taxis, or shaking, with the pelvis elevated, whereby the whole weight of the intestines acted towards the diaphragm. After a second large enema had been injected we put him back into bed, and almost immediately we heard a welcome borborygmus, followed by a horrible stink, and an evacuation of a mass of liquid fæces into the bed-pan. From that time he made a perfect recovery; he lived many years afterwards and died from quite a different cause.

That was an unusually successful case, no doubt, but suppose the plan we adopted had failed and we had been compelled to fall back on laparotomy, the means we had used would not have done the patient any harm and would not have cost more than an hour's delay. If anyone thinks it was efficient, then it is worth trying in early cases before strangulation or ulceration has taken place. If anyone thinks it was useless, then recovery took place by natural means, and he would have done well on starvation and opium.

Tuberculous Disease of the Knee-Joint.

CLINICAL LECTURE BY MR. DAVIES-COLLEY,
October 19th, 1898.

(*Concluded.*)

GENTLEMEN,—I propose to-day to finish what I was saying last week upon the subject of tubercular disease of the knee-joint. I told you then that the chief sign of this affection is a soft thickening of the whole of the space which is covered by synovial membrane. If I draw the knee-joint itself in section (the knee-joint sketched), this will represent the condyles of the femur, and this the tuberosity of the tibia. Then here would be the patella—I will put it at some little distance from the condyles of the femur. Above will be the quadriceps, and below the ligamentum patellæ; here will be the supra-patellar pouch, with its walls composed of thick synovial membrane of a gelatinous consistency. Then below (here) will be a similar mass of gelatinous tissue, on either side of the ligamentum patellæ; and again you will have a similar mass extending, but not nearly so thick, behind the condyles of the femur and forming a little pouch which runs up behind the femur and for a certain distance downwards at the back of the tuberosity of the tibia. It will not lie very much to the sides because they are occupied by the lateral ligaments of the knee-joint, which are attached rather near the articular surfaces.

Then I mentioned to you also that if you could open a joint you would see, from the margins of this thickening of the synovial membrane, a mass of granulation tissue extending right over the surface of the cartilages in the neighbourhood. That I might represent to you in this way. (Drawn on blackboard.) It will cover a portion of the patella and a good deal

of the articular surface of the femur, creeping on its surface and forming a gelatinous-looking mass, clinging to the cartilaginous surface like ivy to an old wall. It is quite different to the irregular islands of cartilage which are left upon the bone in cases of acute arthritis, and it is very different to the osteophytes and eburnated tissue which mark the condition called osteo-arthritis. Fortunately, I have an opportunity of showing to you a case, which I operated upon yesterday. This (tissue produced) was from a girl aged twenty, who had pulpy thickening of the knee-joint. She had been in service until two months ago. She told us that when she was fifteen she had some slight injury and the knee-joint became tender, and she walked with a limp. Then she went to the Norwich Hospital where Scott's dressing was applied, and she for a time got better, but had had ever since some suffering in the knee-joint. I asked her whether she was able to kneel down and scrub, and she replied that she was able to kneel down on the other knee, but had to put this diseased knee rather behind her. Two months ago she became worse, and she could not bend her knee at all; she began to have pain at night; and then she came here with a soft thickening, above and to the sides of the patella, such as you might imagine would be produced by thickening of the synovial membrane. I operated upon her yesterday, and before the operation, I was able to tell those who were there that we should find the synovial membrane all thickened and gelatinous, and the gelatinous material not only infiltrating the synovial membrane, but growing over the patella; I also said that because she had been suffering pain at night, the probability was that we should find a certain amount of disease under the cartilage. For if the disease has lasted some time you will get some osteitis, and you will find little masses of granulation tissue formed underneath the cartilage, and when this is the case the cartilage is raised in a kind of blister and the patient suffers very severe starting pain at night. During the daytime the patient keeps the knee quite still, but at night, as soon as she falls asleep, some slight movement causes pressure upon the raw surface underneath the cartilage and she jumps up with a scream. In the case of this girl, we found the conditions were just as we expected. The cartilage of the patella is but little altered, but you can see very well that more than half of its posterior surface is hidden by the granulations from the thickened synovial membrane, and that just over the inner tuberosity of the tibia the cartilage is blistered up and loose because of granulations growing from the bone underneath it. You will also observe that the granulations from the synovial membrane have covered the inner condyle of the femur, and eaten right into the cartilage, and not only so but they have made a deep groove in the surface of the bone.

I do not think I mentioned to you last Wednesday another point which you might get some information from, namely, the general condition of the patient. He may have spitting of blood, or wasting, or night sweats, which would be a further evidence of its being tuberculous disease. Or you might get a history of gland trouble in the neck or other tubercular affection. You must not forget to avail youselves of a thorough examination of the patient to make sure whether the disease is tuberculous or not.

Then about the treatment. The chief thing is rest to the joint and to do all you can to keep the patient in good health by good air and good food. If the joint is straight put on some kind of splint to keep it stlll. The best splint is Thomas's splint, because with it you can keep the knee straight and at the same time avoid pressure upon the articular surfaces, and the patient can get about in the open air. When the knee is bent keep the patient in bed and straighten it by means of a weight, or sometimes you may give chloroform to straighten it. Then put on a Thomas's splint with Scott's dressing and strapping and try to get the patient out to country air, and give some tonic. That is the ordinary treatment in the earlier stages.

But supposing the disease has lasted a long time and the patient shows no sign of getting better, and especially if there are signs of the part breaking down in suppuration, then you have to adopt some other treatment, such as erasion or excision. I usually employ the operation of erasion or arthrectomy only in cases of small children before the epiphysial lines have ossified. By arthrectomy or erasion the thickened synovial membrane and the affected portions of the ligaments and small portions of bone which are diseased can be removed, and the advantage of this plan is that it interferes very little with the epiphyses and does not prevent the subsequent growth of the limb. The disadvantage is that you do not get such good bony union; you get a more or less moveable joint which is very apt to become subsequently bent. Several cases of arthrectomy which I have done have come frequently to see me afterwards, and I have had to continually fight against the tendency of the knee to become more and more bent. They have to be put

under chloroform from time to time and the knee forcibly straightened, and then put on some sort of splint. Again, in some children you are unable to do arthrectomy because the knee is so bent that you cannot straighten it unless you remove some portion of bone. Under these circumstances you require to do an excision at once.

I always perform an excision in the case of grown-up people. I believe some surgeons prefer arthrectomy even then and look upon excision as rather antiquated. But I think you will find it is much better to have the femur and tibia united into one solid straight bone. The patient can walk about very well and has not the constantly recurring attacks of pain which are very apt to trouble him when the union is by fibrous tissue. The patient is also more free from the great tendency, which I have noticed after arthrectomy, for the knee to become bent.

I would like to say something about the way in which I perform arthrectomy and excision in cases of knee disease, because I fancy it is somewhat different to that employed by other surgeons, and also I think my results have been very good since I have adopted this method.

The plan I always employ is to make a transverse incision right across the front of the patella. In children I divide the patella and unite it afterwards. It is quite easy in these to pass a needle through the cartilaginous material of which the patella is composed, and at the end of the operation to unite the two halves with some salmon gut or silk suture; they join together perfectly. In adults I remove the patella. Sometimes I have used Esmarch's tourniquet and sometimes not. On the whole I prefer that the bleeding should take place at the time of the operation rather than after the wound is dressed. If you use Esmarch's you are apt to get a good deal of oozing afterwards, and when you treat the case subsequently as I do, the occurrence of oozing may cause a certain amount of trouble. Then I make a longitudinal incision at each end of the transverse so that the whole incision is like the letter "H," with a transverse bar across the patella and with much longer limbs above the transverse bar than below.

The advantage of this incision is, you can turn a square flap upward, and can dissect away with the patella the whole of the pouch of thickened synovial membrane along the condyle. Then I turn down the lower flap and clear the whole pouch away on either side of the ligamentum patella below. This opens out the joint very thoroughly, and I can now saw the articular surfaces off, being very careful if the patient is a child not to approach the epiphysial line. Then with extensive incisions of this kind, it is very easy to lay bare the back of the condyles, and to clip away with scissors all the synovial membrane which lies in pouches behind them. Your great object is to remove all the tuberculous material. If it is confined to the synovial membrane you can clear it away, I think, pretty completely in the way I have mentioned. And it is easy also to remove it if it has invaded the various ligaments and the semilunar cartilages of the joint. You will examine the cut surface of the bone, and if you notice any yellow, caseous-looking material, you can scoop it out, and make a groove to the edge of the section, so that any discharge subsequent to the operation may find a ready means of escape. So much for the operation. I think you will easily see how I am able to clear very thoroughly away all the diseased synovial membrane and the gelatinous thickening of the adjacent ligaments.

My subsequent treatment is somewhat peculiar. You know that rather elaborate methods of applying splints are used. Special splints are made for the purpose, furnished with a trough for the thigh and another for the leg attached by an iron bar behind. Mr. Howse, nearly thirty years ago invented a very capital splint which is fixed with melted wax and bandages, and for some time I used that kind of apparatus and was satisfied by it. But I have come to the conclusion that a much simpler plan is more effective, and this is the plan I have adopted for some time: After gently washing the wound out with bichloride of mercury and iodoform emulsion, and stitching it together, I put the limb into the straight position and wrap a good thick dressing around it, consisting of at least twenty layers of carbolic and sal alembroth gauze. The dressing should be very thick for reasons I will explain to you shortly. Then I put on an ordinary plaster of Paris splint from the tuber-ischii right down to the toes, taking care all the time to keep the limb straight, and the foot neither inverted nor everted. That is all that is required. You must put on a thick dressing, and whatever gauze you use it must be an antiseptic gauze. I generally put a certain amount of stout blue wool around the gauze, so that there is a very thick dressing. Well, next day I cut the splint the whole way along and open it out. Usually I find a little blood coming through the dressing on the points where the transverse meets the other incisions. I do

not undo the dressing at all, but I put on some strong antiseptic powder such as the double cyanide, and put some fresh blue wool between the splint and that portion of the dressing which is stained. I do this at first every day, and then afterwards two or three times a week, and if any blood has come to the surface, I take away the stained wool and put on some more antiseptic powder and some fresh blue wool. That is the only change I make in the dressing, providing the patient's temperature does not go up. I leave the original gauze dressing untouched for three weeks, and I expect at the end of that time to find the incisions united by primary union. I have adopted this plan for many years now, and in nearly every case where there has been no sinus before the operation, I have obtained primary union; and in a large number of cases where there has been a sinus and discharge, I have also had primary union.

The great advantage, I think, of this method is that it keeps the part perfectly still. The gauze and wool when soaked with dried blood form a very close-fitting, stiff bandage, and give a much firmer support than plaster of Paris alone would furnish. The plaster of Paris is opened out, and possibly the dressing is not quite the same when you fasten it together again But the gauze forms a close, firm covering to the neighbourhood of the joint, and keeps the fragments absolutely in the same position as that in which you placed them at the end of your operation. So that if I am careful to see that the two segments of the limb are put in a good position at the end of the operation, I am quite sure they will remain in that position afterwards.

The only exception I have had to the successful adoption of this method was in a very sad case which occurred under my care this year, where I operated upon one of these tuberculous knee-joints in a woman about forty years of age. The person was rather ill, and had had tuberculous disease in other parts of her body. A few days after the operation on the knee-joint her temperature went up, and we thought she had got some septic trouble. The dressing was opened and the wound looked healthy. That was the last time I saw her alive. She had vomited a little and it was thought to be from a septic cause. After I left her she suddenly developed very severe vomiting, which was attributed to the same cause, and she died twenty-four hours later. To our great horror we found *(post-mortem)* that really it was not the knee-joint which had caused her trouble, but that she had had an attack of volvulus and intestinal obstruction, the result of adhesions following an old and probably tuberculous peritonitis. As far as I can remember this is the only case of excision of the knee which I have lost for the last twenty years.

But the great point I wish to call your attention to is the advantage of this particular mode of opening the joint, and of putting it up in the way I have described. But I would warn you to watch the temperature very carefully, and if it goes up after three or four days, you must examine into the condition of the wound and take off the dressing. But, as a matter of fact, I have exceedingly rarely had to undo the dressing before three weeks have elapsed.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

CASES UNDER DR. PYE-SMITH.

MARY	25.	Chlorosis.
	26.	Marasmus. Continued diarrhœa.
	27.	Diphtheria. Tracheotomy.
	28.	Loss of power in left leg. ? Hysteria.
	29.	? Pulsating abdominal tumour. Dilated stomach.
	31.	Facial neuralgia.
	33.	Mitral incompetence.
	34.	Rheumatism; second attack. Mitral incompetence. Erythema nodosum.
PHILIP	22.	Bilateral sciatica.
	23.	? Gonorrhœal rheumatism.
	24.	Old phthisis. Hæmoptysis.
	25.	Tuberculous peritonitis.
	26.	Rheumatism; first attack. Mitral regurgitation.
	27.	Acute nephritis.
	28.	Chronic Bright. Albuminuric retinitis.
	31.	Chronic eczema.
	32, 33.	? Enterica
	34.	? Moveable kidney. Acute abdominal pain.
	35.	Mitral regurgitation. Dilated heart.
	37.	Gonorrhœal rheumatism.
	40.	Lead poisoning.

CASES UNDER DR. TAYLOR.

MARY	38.	Uræmia. Fits.
	41.	Hæmatemesis. Gastric ulcer.
	42.	Pleurisy, left base. Effusion.
	44.	Acute rheumatism. Endocarditis. Mitral regurgitation.
	46.	Cirrhosis of liver. Ascites.
	50.	Chronic bronchitis. Large heart. Albuminuria.

STEPHEN 3. Pyrexia. ? Enteric.
5. Mitral stenosis.
6. Hæmoptysis. Phthisis. Left apex.
10. Pyloric obstruction. ? Growth.
13. Broncho-pneumonia. ? Tuberculous.
17. Mitral regurgitation.

CASES UNDER DR. PITT.

STEPHEN 22. Cerebellar tumour.
23. Cirrhosis of liver.
24, 26, 32. Typhoid.
25. Cerebral hæmorrhage.
29. Gangrenous appendix.
34. Acute rheumatism.
39. Aortic disease.
40. Vaccination.
MARY 2, 5. Acute rheumatism.
3, 7. Phthisis.
4, 12. Acute rheumatism.
6. Mitral stenosis.
9. Hæmatemesis.
11. Traumatic hysteria.

CASES UNDER DR. WASHBOURN.

PHILIP 2. ? Growth of pylorus.
7. Locomotor ataxy.
11. Malignant disease. ? Mesentery ? Intestine.
12. ? Empyema. ? Subdiaphragmatic abscess.
14. Phthisis. ? Caries of spine.
17 Mitral disease. Tricuspid regurgitation. Adherent pericardium.
19. Enlarged liver. ? Carcinoma.
21. Aneurysm of cœliac axis.
MARY 13. Mitral disease. Tricuspid regurgitation.
16. Mitral disease.
19. Pernicious anæmia.

"Clinical."

JOHN 1. Rheumatism. Pericarditis.
2. Typhlitis.
3 Typhoid fever. Convalescent.
4. HCl. poisoning. Appendicular abscess. Œsophageal stricture. Dilated stomach. Pyloric stricture. Persistent constipation. Æt. 60.
5. Mitral regurgitation. Pneumonia.
6. Diabetes mellitus.
7. Typhoid fever.
10. Typhlitis.
11. Typhoid fever.
12. Acute rheumatism.
15. Phthisis.
16. Double lobar pneumonia. Æt. 30.
MIRIAM 18. Typhoid fever.
20. ? Aortic aneurysm
22. Pleuritic effusion.
MIRIAM 23. Angina ludovici. Right empyema. Pericarditis. Left pleurisy.
26. Typhlitis.
27. Typhoid fever. Convalescent.
28. Mitral stenosis and regurgitation.
29. Pelvic abscess.
30. Enlarged spleen.
31. Gastric ulcer.
36. Chronic tubal nephritis.

In the Surgical Wards.

CASES UNDER MR. HOWSE.

NAAMAN 2. Incarcerated inguinal hernia. Reduced under A.C.E.
12. Alveolar abscess.
18. Stricture with cystitis.
CHARITY 9. Villous papilloma of rectum.
12. Post scarlatinal ulceration of palate.
Cot D. Granulation tumour of frænum linguæ.

CASES UNDER MR. DAVIES-COLLEY.

LUKE 6. Infantile spastic hemiplegia. Talipes equinus and dropped wrist.
13. Syphilitic testis with sinuses. Castration.
LYDIA 6. Tuberculous tarsus. Ankle affected.
7. Chronic necrosis of tibia.
17. Acute infective osteitis of tibia with suppurative arthritis of ankle. Incised and bone gouged away.
18. Spina bifida. Trophic ulceration on toes.

CASES UNDER MR. LUCAS.

JOB 1. Irreducible inguinal hernia. Radical cure.
6. ? Epithelioma of cheek with suppurating glands. ? Actinomycosis.
8. Tuberculous elbow with sinuses. Amputation through arm.
9. Carcinoma of kidney.
19. ? Senile tuberculosis of hip. ? Osteo-arthritis. ? Malignant growth involving joint.
21. Epithelioma of tongue and floor of mouth. Excision.
21. Incarcerated inguinal hernia. Radical cure.
24. Epithelioma of auricle.
25. Lumbar caries. Sinuses in loin.
LYDIA 13. Fractured femur.
Cot C. Post anal dermoid.
CHARITY 22. Adenoma (cystic) mammæ. Excised.
ASTLEY COOPER 21. Compound fracture of femur and tibia. Amputation. Death.
24. Depressed fracture of vertex. Trephined.
31. Penetrating wound of knee.

CASES UNDER MR. GOLDING-BIRD.

LAZARUS	7.	Strangulated inguinal hernia. Radical cure.
	11.	Charcot's arthritis of knee. Trophic ulcer of foot.
	15.	Lumbar abscess.
	13.	Lupus and tuberculous inguinal glands.
	13.	Ulnar paralysis. Traumatic.
	14.	Tuberculous testes.
	18.	Irreducible umbilical hernia.
	18.	Dermoid on forehead. Excised.
	19.	Tuberculous disease of os calcis with sinus. Syme's amputation.
	20.	Papilloma of heel. Excised.
MARTHA	2.	Carcinoma mammæ.
	7.	Suprascapular lipoma.
	9.	Epulis.
	21.	Coccydynia.
CORNELIUS	14.	Traumatic renal hæmaturia.
	16.	Cut throat. Laryngotomy.
ASTLEY COOPER	22.	Surgical emphysema of eyelids with fractured frontal.
	29.	Fractured base.
	32.	? Fractured ? contused spine.

CASE UNDER MR. JACOBSON.

NAAMAN	22.	Ankylosed elbow. Excised.

CASES UNDER MR. SYMONDS.

LUKE	16.	Empyema.
	17.	Epithelioma of tongue and mouth. Removed. Secondary glands.
JOB	10.	Epithelioma of floor of mouth.
MARTHA	13.	Ectopion vesicæ. Transplantation of ureters into loin. Secondary nephrectomy (right).
	14.	Rectal stricture. Inguinal colotomy.

CASES UNDER MR. LANE.

JOB	14.	Multiple bony and subcutaneous tumours. ? Cysticerci. ? Sarcomata.
	15.	Mastoid abscess. Antrectomy.
DORCAS	5.	Old tuberculous elbow. Excised. Transplantation of sheep's joint into elbow.
4 & Clin. P.R.		Jaundice. Dilated gall bladder. Drained.
Cot B.		Osteo-myelitis of tibia. Secondary arthritis of knee.

CASES UNDER MR. DUNN.

LAZARUS	3.	Hæmatoma of abdominal muscles.
MARTHA	10.	Duct cancer of breast. Excised.
	11.	Lipoma of shoulder (weight 4½ lbs). Excised.
	12.	Recurrent appendicitis. Appendix removed.
SAMARITAN	10.	Perforating ulcer of foot. Locomotor ataxy.

Guy's Hospital Debating Society.

THE first meeting of the session was held on Saturday, November 5th. Everyone was pleased to see Dr. Pavy in the chair.

In private business, Mr. Shufflebotham moved, and Mr. Fortescue-Brickdale seconded, that Mr. Pakes be made Vice-President of the Society. Mr. Shufflebotham said that, since the foundation of the Society, of which, *pars magna fuit*, Mr. Pakes had always been willing to come down and speak, on either side or both sides. Mr. Brickdale said that as long as Mr. Pakes could roll a cigarette he would stand by the Society.

The motion for debate was, "That this house welcomes the Vaccination Act of 1898."

MR. BRYDONE opened the discussion by laying down two theses which he defied his opponents to prove against him. These were—Firstly, that vaccination has proved itself an efficient preventive of small-pox: and secondly, that it is possible and desirable to enforce vaccination by law. After briefly developing these propositions, Mr. Brydone proceeded to carry a brisk war into the enemy's country by denouncing vaccination in its theory, its history, its methods and its results. Dealing first with the scientific defence of the practice Mr. Brydone complained that he had to fight a shadow, since so-called scientific vaccinationists have never succeeded in constructing a definition of the thing they defend. Vaccination has been compared to Pasteur's method of treating rabies, but the comparison is fallacious at every point; for Pasteur's treatment consists in inoculation with a known quantity of a virus of known strength in which is known to be the virus of the disease in question. Vaccination, on the other hand, is the introduction, more or less septically, into the body of a variable quantity of a virus of unknown strength, and which has no known relation to the disease of small-pox. From theory Mr. Brydone passed on to historical fact, and demonstrated in a most lucid and incisive argument how vaccination, springing from an obscure and doubtful origin, trumpeted into the world as a certain, safe and absolute preventive, can at last claim one single merit—that it replaced the still more odious practice of inoculation. For the rest it arrogates to itself all the good results of the improved sanitation which has characterised the progress of this century, and of the system of notification and isolation perfected in the last few years. Analyzing away these false pretentions, Mr. Brydone, in a brilliant series of examples, showed how, in one epidemic after another, vaccination has shown itself futile, how it protects those who are not exposed to contagion, and deserts its victims in the hour of need, and how communities and individuals who have despised its protection have been no more obnoxious to disease than those who have been deceived by its promises.

Mr. ROBERT HOWARD accepted the two-fold challenge of Mr. Brydone and undertook to prove both points against

him. He opened his attack by lightly brushing away all Mr. Brydone's arguments as "edited statistics". He then proceeded by statistics of his own, presumably not edited, certainly not arranged, to argue that in selected cases white is tinged with grey and therefore white is for ever and triumphantly black. To attempt a résumé of all that Mr. Howard said would require seven editors—we give a single example of his style. Mr. Howard maintains that in pre-vaccination days the disease fell chiefly upon children—the class which had not undergone inoculation. Since the introduction of vaccination it has fallen chiefly on adults, the class who had not been vaccinated for some years, whereas children, who, by reason of their age, must have been vaccinated recently, escape, and so, as Mr. Brydone said, your vaccinator in search of statistics has compared one year with another, one place with another, one class with another, until at last some genius compares one age with another. But Brutus is an honourable man, and such statistics are nowise "edited". Equally frivolous was Mr. Howard's treatment of the political question. He arbitrarily divided anti-vaccinators into two classes, (1) the genuine conscientious objector who is anti-everything, (2) the man who is too lazy and too selfish to care. He then proceeded to neglect the first class and devote his choicest abuse to the second, which fortunately deceived *nobody*.

Mr. STOEHR suggested that Mr. Howard, after possibly nine minutes' *a priori* consideration of the anti-vaccinator had reached the conclusion that he is either a knave or a fool. Her Majesty's Commissioners after spending nine years in enquiries have described him thus in their report, section 517, page 135:—"We believe that the objection to vaccination has largely arisen from the attempt to compel the vaccination of their children by parents who conscientiously believe that vaccination is of little or no advantage as a protection against small-pox, and that it involves a serious risk of injury to the health of the vaccinated child. Symptoms of injury following vaccination, and really or apparently connected with it, have occurred in the case, it may be, of an elder child of the same parent, or in the case of a neighbour's child; this immediately arouses hostility to vaccination, and induces the parent to resolve that his child shall remain unvaccinated. If the attempt be made to compel a parent, in this attitude of mind, to have his child vaccinated, it meets with determined opposition, and, where the penalty is repeated, the hostility is often intensified without any progress being made towards the vaccination of the child. Such a parent has often become a focus of hostility to the vaccination laws; his neighbours and friends take his side; he is regarded as a martyr; and he and they frequently become active agitators against the vaccination laws." Mr. Stoehr slew the dead by some further needless criticism of Mr. Howard's methods.

Dr. SYKES made a most interesting speech which we should like to study printed in full. Space and memory failing, we give an abstract of the passage which struck us most. Dr. Sykes maintains that men don't get vaccinated for the fun of the thing, but in every case submit to the operation through fear of the consequences of not submitting. The consequence feared may be either (*a*) small-pox; (*b*) penalties, fine or imprisonment; or (*c*) civil disabilities. In the early years of the century small-pox was so widespread and terrible that the fear of it sufficed to induce men to undergo vaccination. As the disease became less evident, so did the fear of it diminish, and it became necessary for the law to superimpose the fear of penalties. As the disease kept on decreasing, so the penalties gradually increased; in other words, the sanction of the law increased in inverse ratio to its apparent utility. Naturally enough, opposition to the law arose and gathered strength as its harshness increased, until at last we have seen the opposition triumph over the law. In Dr. Sykes' opinion the present law amounts to the abolition of compulsion, and the consequence will be small outbreaks of small-pox, increasing in frequency until the disease is practically endemic. By this time, fear of the disease will again become a working motive, and vaccination will be again enforced, but in a new way, not by penalties, but by disabilities. Of such disabilities we already have examples in the admissibility of unvaccinated persons to the army, the navy and the postal service. According to Dr. Sykes, this system can and will be extended to workshops, to schools, to insurance and benefit societies, to houses, landlord's refusing to receive unvaccinated tenants, until vaccination again becomes universal.

DR. JAYNES welcomed the new Act as an improvement in many respects on the old one, but he found several points in it to criticise. For instance, the greatest difficulty in forming a trustworthy estimate of the results of vaccination has hitherto been that vaccinations made by private practitioners, and sometimes most unsatisfactorily performed, must take equal rank in statistics with work properly carried out. This might be remedied by the appointment of government inspectors, who would examine test cases of every vaccinator, whether public or private, and incompetent or dishonest practitioners would be forbidden to vaccinate. Another change which Dr. Jaynes would have liked to see would be in the mode of payment of public vaccinators. Under present arrangements, vaccination officers are paid by the guardians of their district, and an anti-vaccinationist board of guardians has it in its power, particularly in country districts, to pay its officer so low a mileage that it is not worth his while to vaccinate children who live at any distance. As regards the dangers of vaccination, Dr. Jaynes has in his own experience never had a death in 25,000 cases, though if anything had gone wrong the anti-vaccinators would have been sure to let him and the public know of it. Speaking of compulsion, Dr. Jaynes thinks, as does also Dr. Sykes, that where it cannot be enforced the attempt to enforce it only makes the law ridiculous. In fact, so far as these gentlemen said anything controversial they were rather in favour of the motion than against it. Fortunately, they spoke less as

controversialists than as critics raised above partiality by their special knowledge.

Mr. ROBERT HOWARD, on the other hand, went for "the precious Act" red-headed. According to him, the anti-vaccinator is the product of board schools, of cheap education, and popular science. He is only a product of the general tendency to allow the ignorant and conceited to dictate to their betters. This was Mr. Howard's text which he continually hammered in with new illustrations, similes, and examples. We are not likely to hear such speeches until Mr. Howard comes down again, and everyone hopes that may be soon. Meanwhile, at every fresh charge Mr. Howard was tearing this unhappy law into smaller shreds, rending first the principles and then the details. And the worst of it is that in listening to this sort of speaking, though you differ *toto cœlo* from the speaker, yet you don't know in the least where to have him. You can't dispute his postulates because the postulates are far beyond the scope of the debate. Yet once you admit them you are rushed along without a break to the conclusion. Needless to say that Mr. Howard's speech was received with enthusiasm.

Mr. F. G. GIBSON made some ingenious remarks in a very agreeable style.

Mr. ROBERT HOWARD went on reading and mis-reading the Blue Book.

Mr. BRYDONE made a reply in which he twisted everything that had been said against him into his own favour in a most unprincipled and delightful manner.

A vote was taken by acclamation. On the one side was a thunderstorm of voices; on the other a few wavering cries. A show of hands being demanded, about forty men held up their hands at the wrong time, so that a great moral victory for the cause of freedom and justice was balanced by a technical loss of the motion by 43 votes to 6.

Chapel News.

On the Sundays in Advent a course of sermons will be preached in the morning by the Rev. Francis Rice, and in the evening by the Acting-Chaplain (the Rev. H. E. Gunson). At the close of the evening service a metrical litany will be sung.

On Tuesday, the 29th inst, and on the following Tuesdays in Advent, there will be a short service with an Instruction by the Rev. H. E. Gunson, at 8.15 in the evening.

On Advent Sunday there will be a collection at each service for St. Andrew's Waterside Church Mission.

There will be Services in preparation for Holy Communion on Saturday the 26th inst., one at 10 in the morning, and the other at 9.50 in the evening.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Inter-Hospital Chess.

DEAR SIR,—On Nov. 1st, a meeting of representatives of the chess clubs of some of the hospitals was held to consider the question of an inter-hospital competition. The meeting was not considered sufficiently representative to draw up a completely digested and authoritative scheme, but the enclosed suggestions were unanimously adopted. I am directed to ask you if you will attend or ask some chess enthusiast from your hospital to attend a meeting at 8.0 p.m. on Thursday, December 1st, at Dr. Fred. J. Smith's house, 4, Christopher Street, Finsbury Square, to further consider these suggestions, and to arrange details. I am, yours truly,

London Hospital, R. C. TURNBULL,
Whitechapel Road, E. Hon. Sec. of Chess Club.

1. That an annual inter-hospital chess competition be established.
2. That six boards be played.
3. That the competition be played on the "knock-out" as opposed to the "all play all" principle.
4. That as regards eligibility of the representatives of the various hospitals, the same rules shall apply as for the origin of the Lawn Tennis and Rowing competitions.
5. That a trophy of some sort be provided. How? Rules to govern possession? Shape? Individual trophies for players?
6. That a United Hospitals' Chess Club be instituted by which the matches be arranged. How formed? Subscriptions?

Novelties.

MATERIA MEDICA, PHARMACY, ETC.

Messrs. Zimmermann of St. Mary-at-Hill, have sent some samples of bandages which they are now making, and very excellent bandages they are.

They are white absorbent bandages, especially suitable for boiling, as they become saturated immediately; they have clean edges and are very pliable, fitting quite evenly when rolled on the slant. They are made in all widths, and are exceedingly moderate in price, 2½in. wide 11s. 7d. per gross, 4in. wide 18s., carriage free.

Papers by Guy's Men.

Micro-Organisms of the Mouth. By K. W. Goadby, L.D.S.—*Dental Journal* for October.

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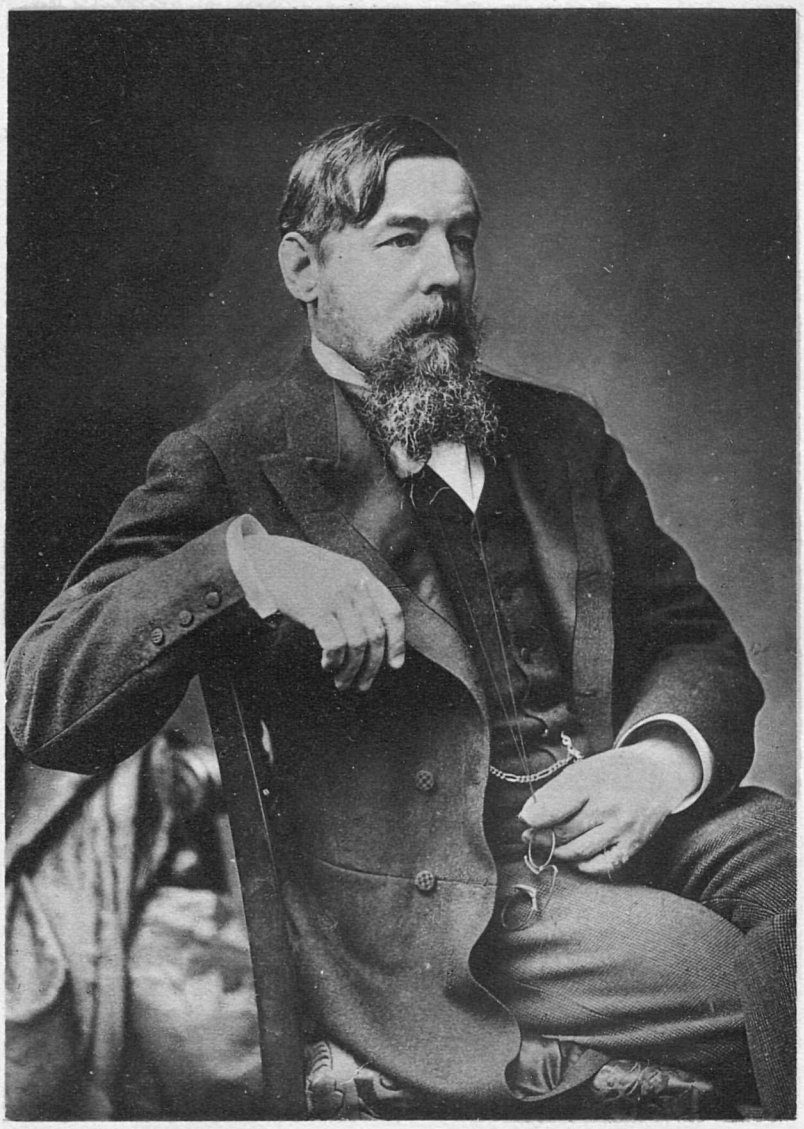

J. F. GOODHART, M.D., F.R.C.P.

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From a negative by Elliott & Fry, Baker Street, W.

Passim.

On Monday next, Dorcas ward, with both Mr. Jacobson's and Mr. Lane's beds, will be moved over into the new Queen Victoria ward, which is now quite finished. These beds will remain in Queen Victoria till Dorcas has been cleaned and done up, and the Surgical beds have been re-arranged among the surgeons; and on January 1st, Queen Victoria ward will start in full swing as the Gynæcological and Obstetric ward only, managed under the new system of obstetric residents.

At the same time, great progress has been made with the temporary Nurses' Home, which will be ready very shortly for the accommodation of the fifty nurses who are now housed in old Mary ward. The temporary home will be ready by the end of this month, and old Mary will then be empty and free for further use. After Christmas the patients in every surgical ward will be transferred there in turn to enable the surgical wards to be thoroughly cleaned and asepticized in order. When this has been finished, the ward will be opened as a much-needed extra medical ward.

Dr. Goodhart, in response to an urgent appeal from the Gazette, has, on the grounds of modesty, declined to give any autobiographical notes or reminiscences. In this case, we are compelled to publish a quotation from his letter on the subject as a justification for our shortcomings. It is as follows:—"* * * But oh! you don't know the modesty of the man when you ask him to give you some reminiscences of the Past. Dear friend, I am a man without a Past! I live in the Present, and anticipate the joys of a Future that, as it unfolds never comes up to its anticipations." We sincerely hope that Dr. Goodhart will soon outgrow some portion of his modesty.

Dr. George Newton Pitt has been appointed Physician to the hospital.

On Thursday, November 3rd, an Extraordinary Meeting of the Students' Club was held to consider the advisability of allowing smoking in the Dining Hall at tea time. After much discussion, the proposal to allow smoking was negatived by a large majority, and on the whole the decision was a most satisfactory one. The objection to smoking is not so much an objection to the practice itself at that hour, as to the difficulty that would arise from the large number of men who would be attracted to the Dining Hall by the prospect of a better tea than is obtainable downstairs under the same conditions. This crowd would entail much more labour upon Miss Moore and her staff, and would also seriously hinder the punctual appearance of dinner, and as those who want to smoke at tea can do so in the Smoking Room, the meeting was quite right in refusing the application to smoke upstairs.

D. M. Beddoe, F.R.C.S., who was house-surgeon here in 1895, has sailed to join the small colony of Guy's men already in Egypt. He intends to specialize in throat, nose, and ear work, to which he has given a great deal of attention latterly, having just vacated the post of house-surgeon at the London Throat Hospital. Being exceedingly genial and a good man in every sense, we have no doubt of his immediate success.

The debate on the subject of the new Vaccination Act on November 8th, though enhanced by some very able speakers, was a dismal failure from the point of view of those who have at heart "the liberty of the subject." It was something pitiful to note how the majority of men present could not sufficiently emerge from their hide-bound conservatism to see that compulsory vaccination was not an ideal, or in some cases a justifiable *régime*. Because from their infancy up they had been told by those who professed to have paid some little attention to the subject, that the vaccination of every child was necessary for the well being of Society (in the Socialistic sense), they remained unmoved by the brilliance and soundness of the speeches of some half-dozen Free-thinking Anti-vaccinationists. This speaks very badly for independence and breadth of thought at Guy's, and is but another instance of the proverbial narrowness of the medical outlook.

The result of the Croydon match last Saturday was not quite what we should have liked, but the game itself must be classed as one of the best we have had this year. The unfortunate accident to Ransford—who has our sympathy, and best wishes for a speedy recovery—cannot altogether account for our defeat. We would, if asked why we lost, say it was rather due to a lack of combination among our backs, and want of condition among the forwards. It is reasonable to state that these weaknesses should not

occur when we have the advantages offered by our ground at Honor Oak Park.

The hospital sent a weak team to meet East Sheen at Richmond on Wednesday. They, however, gave their opponents a very good game, which was interesting and at times fast and exciting. The duties of a referee are undoubtedly hard, but the absolute gift of a drop goal to our opponents and a try to ourselves is apt to interfere with the enjoyment of a game. This happened before the arrival of the fog, too. Our tries were scored by Rae and Pierce; the former was the result of a smart piece of play. Jupp was nervous and did not play up to his reputation at back. At three-quarter Rae was very good, and should have been made more use of, while Jackson played his best game this year at half. Of the forwards Shorland and Trubshaw were always prominent, and Milsom followed up well. They should all learn that they must assist their own side in dribbling and tackling instead of acting a spectator's part.

The Association teams are still going very strong. On November 5th, the 1st XI. drew St. Leonard's at two goals each, and on November 12th they beat Weybridge for the first time for four years by four goals to one, the whole team playing well and playing together. Next week the team will be still further strengthened by the return of McAlpin. In the Surrey Junior Cup Tie the 2nd XI. drew with Balham School.

In another column we publish a letter which we have received from the Secretary of the Chess Club at the London Hospital, proposing to form an Inter-Hospital Chess Club. If any men up here are keen on the game we should be glad if they would communicate either to the Gazette or to R. C. Turnbull, Esq., London Hospital.

The annual Gazette Christmas Cards are now ready, and can be obtained of the Librarian, price 3d. each. They have been published early in order to be in time for colonial and foreign mails for Christmas, and those who are sending out of England should lose no time in procuring them. It would also be a matter of convenience if men would buy the cards as early as possible, as our stock usually runs out in the week before Christmas, owing to the sudden and unforeseen rush for the cards at the last moment.

The Smoking Concert which was fixed for this evening has been unavoidably postponed.

Plague.

A paper read before the Physical Society on Saturday, October 29th, 1898, by Mr. H. W. Bruce.

Mr. President and Gentlemen,—It being impossible in one paper to deal fully with every aspect of plague, I have thought that a general account of the problem which the present plague epidemic presents, of the measures which have been adopted for its extinction and of their absolute failure to achieve that object, would possess more interest to those who have had no opportunity of seeing the disease than would a detailed clinical account of the many symptoms of this most varied disorder.

For the sake of clearness, I will, however, first give a brief account of the symptoms of plague, and then go on to discuss more fully the general question of the epidemic.

Plague is a specific fever due to a micro-organism, the bacillus first discovered by Kitasato. It occurs in two forms, the *bubonic* constituting 92 per cent. of the whole number, and the *pneumonic* the remaining 8 per cent. Several varieties of the former have been described, from *pestis ambulans* and *pestis minor*, mild forms, to the so-called *plague septicæmia*, the *fulminant* form of previous writers, the most severe type, fatal before the formation of the characteristic bubo; but these varieties arise only from differences in the severity of the toxæmia, and have no real clinical value.

The bacilli are found in the inflamed glands in bubonic plague, and it is generally accepted that reaching the lymphatic system through some abrasion of the surface they multiply in the glands, and there produce the toxines which, circulating in the blood, give rise to the symptoms of the disease. Towards the end, in fatal cases, the bacilli invade the blood-stream itself, but this does not occur in the milder forms.

In pneumonic plague the lungs are primarily affected and contain the bacilli.

Bubonic plague begins, after an average incubation period of four or five days, with the usual symptoms of fever, malaise, headache, hot dry skin, and rapid rise of temperature. A rigor may occur, but vomiting is a more common initial symptom. Very early there are marked mental symptoms. The relaxed facial muscles give to the patient's face the dull expressionless look of a man stupidly drunk, his speech is the slow inco-ordinate articulation of the same condition or the blurred utterance of the general paralytic, and his mental faculties are in a corresponding state of abeyance. A dry tongue and mouth, and an increased respiratory rate, are frequent symptoms at this early stage.

The characteristic bubo sometimes appears as the first symptom, but more often on the second or third day,

and occasionally later. It consists of an inflammatory enlargement of one or more lymphatic glands together with exudation into the surrounding tissues, and frequently forms a large tender mass. The inguinal glands are most commonly affected, but any of the superficial glands may be inflamed and sometimes more than one group is involved.

The mildest cases consist of the formation of the bubo with slight rise of temperature and nothing more, the patient not feeling ill enough to go to bed. In the slightly more severe cases, the patient suffers from a febrile attack but with no mental symptoms, and the bubo appears and either subsides or suppurates. In the commonest type of non-fatal case, there are the mental symptoms mentioned above, which may go on to stupor or delirium, and the patient recovers after a severe illness lasting about ten days. In the directly fatal cases, the patient rapidly passes into a state of stupor, and then into one of coma; and cold extremities, with the trunk still burning hot, imperceptible pulse and rapid shallow respirations usher in a death which is a typical picture of the most severe depression of the vital centres due to a toxæmia. Occasionally, death may occur later from secondary pneumonia, or from sudden heart failure, the result of some generally slight effort. The pneumonic form of plague presents quite different characters. The patient rapidly develops severe symptoms, and when first seen he is often already in a hopeless condition. The most striking symptom is urgent dyspnœa. The respiration rate may be as much as 90 per minute, the movements shallow and distressed; the patient may be quite conscious, with drawn anxious countenance, gasping out his complaint of intense pain in the chest or now and then in the abdomen. The expectoration, often profuse, is bright red and frothy; very seldom can any physical signs except râles be made out. The patient rapidly becomes unconscious, the pulse fails and death occurred in every one of the twenty cases which I myself saw, and practically in every case recorded by those who carefully distinguish pneumonic plague from the less fatal secondary pneumonia of the bubonic form.

This fatal disease is apparently due to the direct invasion of the lungs by the bacillus, producing a diffuse broncho-pneumonia; in parts running together so as to form fairly large masses of consolidation. The general mortality of plague has been about 75 per cent. of the cases.

To come now to the epidemic; it must not be thought that the difficulties met with are due entirely or even for the greater part to the deep-rooted objection of the native population to European sanitary methods. If Bombay were peopled with a race as willing to yield to measures intended for their own good as are Englishmen themselves, it is still almost certain that the epidemic would run its full course, although doubtless that would be a diminished one, and die the natural death which is the one hope at present of the Bombay sanitarians. For the means by which the virus is spread, and the opportunities which the habits of the people afford for the development of that virus are factors in the spread of the disease which have so far baffled the most thorough and scientific means of extermination. I propose to discuss first the origin and spread of the epidemic, and then go on to consider its treatment.

In certain small regions of the earth, plague is endemic. In five places, according to Payne, situate in the more temperate parts of Asia and of Northern Africa, plague is always present, or if absent is liable to crop up again at any moment.

This recurrence of the disease after an interval of freedom and in the absence of re-infection from outside, would seem to prove that the virus infects the soil, that plague in fact resembles malaria in being a miasmatic disease. It is conceivable that the disease might be kept going, as the specific fevers are among us, by repeated contagion, but the intervals during which it is completely absent, and the way in which elsewhere it dies out altogether after a certain period, are strong arguments against the theory.

All the experience of past epidemics tends to show that the conveyance of plague to other countries from these homes of the disease or from the places where plague at the time is present, always takes place through the agency of some person suffering from the disease. Cloth and other articles of export have been in repeated epidemics carried from plague stricken ports to uninfected countries with no particular precautions of disinfection and without any evil results as regards the dissemination of the disease. A thorough bacteriological investigation into the possibility of the conveyance of the bacillus by grain, has been made in India, by Hankin. He found in a series of experiments with different kinds of grain, that the longest period for which virulent bacilli mixed with grain retained sufficient vitality to kill a mouse inoculated with them, was twelve days, and the period was as long as this in only one case, and in that one the mouse showed no symptoms of plague, and probably died from something else.

By human agency no doubt, some time in 1896, the exact date it is impossible to say, plague was brought to Bombay. The actual place from which it was imported is equally unknown, but it appears to have come either from Hong Kong, which had just suffered from an epidemic of the disease, or from one of those places in the Himalayas where it is endemic. A pilgrimage from one of these centres took place about the time of the appearance of plague in Bombay, and the pilgrims, although doubtless very holy, were equally filthy, and most suitable carriers of infection.

The disease did not at once blaze into an epidemic. It slowly and insidiously increased, and became steadily more virulent. The first cases which occurred were unrecognised. Cases of a mysterious and fatal disease were at the time recorded, and when the epidemic appeared, various people remembered being puzzled as to the cause of the death of some of their patients in the earlier part of the year, but this being an occurrence of no great rarity, occasioned little comment at the time.

When, however, the presence of plague in the city was definitely recognised, the question of its treatment was raised.

Exact knowledge of the means by which an infectious disease spreads, and of the conditions which affect its development and dissemination, is absolutely necessary for the effectual treatment of an epidemic. In the case of plague such exact knowledge is for the most part absent; but certain points have been so constantly verified by experience, that they have become more or less established facts.

Plague is a disease in no way affected by the humidity or dryness of the soil or air. The places where it is endemic comprise sites on the Himalayas 7,000 feet above the sea level, and marshes on the banks of the Tigris and Euphrates.

It has raged alike in low-lying Bombay with an atmosphere saturated with moisture, and in hill stations noted for the dryness of their climate and soil.

Temperature, on the other hand, is a factor of the very greatest importance in the life of the plague bacillus. It flourishes best at a moderate temperature; a high one seems almost certainly fatal to it. The disease is unknown in the tropics. For two winters now it has raged in Bombay, and rapidly diminished almost to vanishing point with the onset of the hot season. At present it is again lighting up as the winter approaches. The well-being of the plague virus is, however, as dependent on certain insanitary conditions as on the temperature. It has been abundantly proved that plague is a disease of filthy surroundings, of imperfect or absent ventilation, of poverty and of distress. The poor always suffer most; an epidemic nearly always follows a famine, or some calamity leading to general distress and privation. It has been so in India at the present time; the memory of the Indian Famine, and of the Indian Famine Fund, is still green.

With regard to insanitary conditions, Bombay could probably hold its own with any city in the world. There is nothing remarkable in a plague epidemic attacking such a city; it is a much more wonderful thing that it has not done so before. The majority of the poor live in large, many-storied dwellings, containing an immense number of rooms. Most of these rooms are absolutely unventilated, the only opening is the door which opens into the common passage, the air of which is already befouled as much as it can be with the emanations from adjoining rooms. Windows are rare, not a gleam of sunshine ever reaches these cramped habitations, in each of which at least one family lives. In a room of any size more than one family abides; the shoe-makers are especially fond of all living together to the number of twenty or thirty families in one large room. These have been called warrens. I think there is much more decency about even an average warren.

The walls and floors of the rooms are covered with a mixture of cowdung and mud, mixed and spread by the women. The little cooking-stoves are constructed of the same material, while the almost universal fuel is dried cowdung cakes; these, again, being collected and prepared by the gentler sex among the people. There are but few chimneys. In rooms such as these, overcrowded to an almost inconceivable extent, hundreds of thousands of people are living.

In the smaller towns of the presidency, while such large conglomerations of insanitation are for the most part absent, yet, the one-roomed houses in which most of the poor live are admirably adapted to exclude both sunlight and ventilation. The walls and floors are covered with the same impermeable cowdung covering; the roofs consist of a covering of twelve or eighteen inches thickness of earth placed on a layer of tree branches laid on rafters. Grass grows on top of these houses, and when many of them adjoin, the continuous roof looks like a second storey of earth. When the family, of perhaps six or seven persons, retires to rest, the door is carefully closed, and any chinks filled with rags; windows are rare and chimneys still more uncommon, and the atmosphere in a very short time becomes indescribable. The most striking feature about the houses is the practically constant collection of filthy rubbish which they contain. Dirty rags and similar objectionable articles of no conceivable use are stored up by the people in the most persistent way. The clearing out of these microbe-laden heaps constituted no small part of the work of disinfection.

Under conditions such as these, when the patient remains in the bosom of his family, the disease appears to be not only exceedingly contagious to those in the immediate neighbourhood, but also to possess the more dangerous property of spreading for some distance around. Frequently almost all the members of the family are stricken with the disease. In my own experience one striking example occurred. In one of two adjoining but isolated houses a man fell sick with the plague. The illness was concealed and the man died in the house. Of the twenty-two people living in the two houses, twenty-one were attacked with the plague and twenty died. Similar examples have been frequently seen; at the same time the disease will attack people living at a distance who have never come into contact with a patient or even into his immediate neighbourhood.

But when the same patient is placed in a clean, well-ventilated hospital, the virus appears to lose almost all its powers of propagation. The theory that an ordinary case of bubonic plague with sanitary surroundings is practically not contagious has been so constantly verified by experience as to be almost an established fact. The small number of cases of plague which occurred among those who worked, in various capacities, in the hospitals, is most remarkable and especially so when the immense number of patients treated in these hospitals is considered. It has been thought that the prolonged breathing of the air of an infected house is necessary for infection, that indeed it was necessary to sleep in the house, but the servants in the hospitals were breathing a presumably infected air all day and some of them all night. With regard to this matter, I myself had a most striking

experience. In the hospital which, as usual in the smaller towns, was composed of a collection of huts, each patient was, in the absence of nurses, attended by a member of his own family. In some cases where one head of a family was dead and the other lay ill, a whole family of little ones would live in the same hut with their sick parent. Each of these attendants lived and slept in the same hut with the patient. It did not appear a desirable arrangement but it was the only one possible. Two hundred and forty patients were treated in the hospital, and among all the attendants, at least two hundred and forty in number, only two contracted plague, and one of these was admitted during the incubation period.

The propagation of plague to a distance also disappears as would be expected in the presence of cleanliness and free currents of air. In the numerous camps which have been established in various places, and which were from their nature well ventilated, cases of plague now and again occurred, and sometimes, owing to negligence, patients died from the disease before the illness was discovered. But it never happened that the plague spread through these camps as it so frequently did through towns where it appeared.

The explanation of these observed facts is not so easy as their statement. By what means infection is given off from a plague patient is but imperfectly known. Since a bacillus causes the disease it is presumably in the form of a bacillus that the virus is propagated. The formation of spores has never been observed.

The most various statements have been made as to which of the secretions or excretions of patients suffering from plague contain the bacilli. This difference in the results of observations appears due to the want of sufficient care on the part of the investigators in differentiating the plague bacillus from others which, though exceedingly like it to look at, are yet in their powers quite different. On one point all are agreed, that in the sputum of pneumonic plague, virulent bacilli are present in large numbers. They are also present in the buboes, but disappear when suppuration occurs, so that the pus from the buboes, although generally regarded with the greatest dread as being a sort of concentrated infection, is probably innocuous. The majority of observers say they are not present in the fæces, nor in the sputum of bubonic cases, but they have been found in fluid expressed from the urethra. Their presence in the blood in fatal cases makes it possible that they may escape in the hæmorrhages from mucous membranes which sometimes occur, and thus infect vomit and fæces.

Direct inoculation from the sputum of pneumonic plague—possibly from other excretions, and during post-mortem examinations—is a well recognised means of infection of the healthy, but it can apply to only a small number of cases, for the attendants in the hospital ran the same risk of such inoculation as do the patient's family when he remains at home. But the former are almost immune, while the latter may be and often are every one of them attacked. It will be explained below that an infection of the soil seems necessary to explain the spread of plague to those at a distance, and it appears reasonable to suppose that to such infection of the soil is also due the outbreak of the disease among those in the immediate neighbourhood of the patient, that in whatever way the virus leaves the patient it first infects the soil, from which secondary infection of healthy people occurs, probably through some abrasion of the skin. But the above-mentioned insanitary conditions seem absolutely necessary for the continued existence of the bacillus, or possibly for the development of sufficient virulence to make it capable of producing plague in other people.

The mysterious power possessed by the disease of propagating itself to a distance around a sick person, who thus appears as a focus of infection, is a still more difficult question.

The conveyance of plague through the air for at least yards has been considered proved in past epidemics. It is difficult to believe that this can be at all a common occurrence, when the fatal effects of sunlight and of currents of air on the virus are considered.

Conveyance by infected clothes is a point on which the present epidemic has thrown no light. That this cannot take place from one country to another at a distance has been proved by much experience in the past, but in some epidemics clothes which have been in contact with patients suffering from plague have proved fertile sources of contagion to people in the same town. This, however, appears to be the case only at the height of the epidemic. One of the French physicians in Egypt wore the shirt of a dead patient for two days without evil effect, but this was when the disease was on the wane, and no doubt the capacity of plague to be so conveyed varies in different epidemics.

The old stories of sudden attacks while opening packets of infected clothes reveal themselves by their simple contempt for an incubation period.

There is absolutely no evidence of the conveyance of plague by water or food, while the simple passage of the virus through the soil for any distance is hardly conceivable.

As far as can be seen, only one other possibility remains, and that is, the carriage of the bacilli by the lower animals, especially rats. Are rats to be condemned as the chief cause of the spread of the disease, or are they to be sympathised with as sufferers along with man from an infection with the propagation of which they have nothing to do?

Rats certainly are attacked with plague; they develop buboes, contain the bacilli, and die in large numbers. Many instances have already been recorded in which the appearance of dead and dying rats has preceded an outburst of plague among the human inhabitants of the locality. It is a very strong argument in favour of the soil infection theory of the disease that these burrowers suffer so from the epidemic, and this theory being accepted it seems inevitable that the movement of rats from an infected place, as from a sunken ship, must

carry infection to wherever their next resting place is. The local rats will then sicken and die, although themselves blameless in the matter of carrying disease, and a like result follows the infection of the soil by human agency. There are faults on both sides. But how can a sick rat infect a healthy man? A primary infection of the soil, with secondary infection of the man, seems the only reasonable theory.

The treatment of such a disease in epidemic form, and spreading in the ways above mentioned, was the problem which confronted the Bombay authorities towards the end of 1896. It is clear from the above that to stamp out the epidemic is an impossibility. Two insuperable difficulties have already been described, the hopelessly insanitary state of the city, and the peculiarly effective method of dissemination of the disease. A third will be gone into below, and that is the resistance of the people to European methods.

At first the hopelessness of anything like eradication of the disease was not understood, the method of spread not being fully recognized. The first measures were directed chiefly to the patient himself and his immediate surroundings, and were practically useless. Isolation of the patient and of those who had been in contact with him, and disinfection of his room and of his clothes, are proceedings which are without doubt useful, but which can have no effect on an epidemic depending on the infection of the soil for a distance around the patient. With increased knowledge more thorough methods were introduced. The first thing essential is of course the discovery of the cases. This is an easy thing when an almost perfect system of notification exists. But as soon as the people learnt that the discovery of a case of plague meant the removal of the patient to an hospital, of his family and neighbours to an isolation camp, disinfection of the house and other objectionable proceedings, they began in every imaginable way to try and hide their sick. They thought, or interested agitators made them think, that in the hospitals Hindoos and Mussulmen, Brahmins and Sweepers, would be indiscriminately mixed together. The declining prejudices of caste among the Hindoos were fanned by lying reports. Among the Mussulmen it was spread about that in the hospitals prayers would be forbidden and spirits enforced, that their women would be handled by strange men, and that the most brutal methods were adopted in the treatment of cases.

The ambulance was compared to a hearse, and it was commonly believed that every patient was first killed and afterwards dissected. Such were the ideas of the fate of the patient. The woes of his relatives were also serious and much more real. It was no small thing for them to be straightway marched off to a camp and there shut up for ten days. It seriously interfered with business if they had any, it was a strange place and a clean one, and they thought it uncomfortable. Disinfection and cleansing of their homes was also a proceeding which they had the strongest objection to. Other irksome quarantine regulations followed, making it difficult for the traders to travel about, making passes necessary and detention in railway camps frequent, while through it all was the fatalistic nature of the Indian native. The epidemic was the will of God, a thing to be accepted and submitted to, to be run away from perhaps if too bad, but not to be fought with.

Notification by medical men was of course useless as a means of discovering cases. Many patients were never seen by a doctor, and if they called one in the native practitioner was liable, either from ignorance or complicity, to help in the concealment. The means adopted were, firstly by information gleaned from leading natives, from those whose vocation took them most among the people, and from neighbours with a grudge or of a different class. People of the same community did not give one another away.

This method answers well enough when the cases are few and far between, but is quite inefficient at the height of an epidemic. Then the second method had to be fallen back on, that of house to house visitation. If the whole city could be searched daily, it follows that all the cases might be discovered, but unfortunately this was impossible and, as a matter of fact, in the working, the method was greatly at fault. The appearance of the search party at one end of the street was the signal for the removal of the sick from the other end. Many of the houses are connected by secret passages or overhead communications, and they are only separated from one another by narrow gullies, so that the conveyance of a sick person to a considerable distance without going into the street is an easy matter. Indeed, even when a cordon was drawn round a district and that district then searched many cases escaped detection.

All sorts of methods were adopted to hide cases which could not escape inspection. Heaps of clothes, when turned over, revealed plague patients beneath; they were hidden under chairs and beds, locked up in chests, concealed in dark and out of the way rooms. In the early stages of the disease, sick people would bustle about, making all the noise they could, vigorously grinding corn or singing cheerfully, to simulate health and avoid detection. Dead people were propped up in chairs to resemble living ones; a party of card players contained a dead man among them; corpses were secretly left in the street with no trace on them of where they came from.

The result of this was that during the height of the epidemic there was a discrepancy frequently amounting to seventy or eighty cases between the increase in the daily mortality and the returned number of plague deaths; that is to say, that in one day the total mortality would exceed the average mortality, plus the mortality due to plague, by seventy or eighty. This was in the absence of any particular prevalence of other diseases, and without doubt these seventy cases were really deaths from plague signed up as due to lung diseases, fevers, and unknown causes.

However, a case having been discovered, it is absolutely essential that it should be removed from its inevitably insanitary surroundings. A man lying sick of plague in

a Bombay chawl is a danger to the community. He possesses unlimited powers of propagating the disease; in many towns one case has been the starting-point of an epidemic involving hundreds. The proposal, seriously made, to isolate patients in their own homes is, in the face of the known facts as to plague dissemination, simply criminal.

The hospitals in Bombay consist of several large, one-storied sheds, of light construction. They are most freely ventilated, which is much more possible in that climate than in this. In the country, for the most part, the hospital consists of a collection of huts. Straw and sacking are the materials most commonly employed. Huts of the former, when of sufficient thickness, are cool even in a very hot sun, and, of course, allow the freest ventilation.

On the other hand, they are exceedingly inflammable and very fragile, so that huts of sacking, which become, however, very hot and close when the sun is up, were preferred by some.

The removal of the patient is a very small part of the battle. He is probably only the first-fruits of the infection of his house. The people living with him are all of them, as long as they continue there, in danger, and some of them may have already been infected. It is not only necessary to remove them from the infected place, but it is also necessary to prevent them spreading the disease. Hence the system of segregating these "contacts," as they are called, in camps. They, with their belongings, were sent, under police supervision, to a camp, where they were kept under restraint and observation for ten days, the usually accepted maximum incubation period of plague. A small proportion of these contacts developed plague, and were removed to hospital. The facts above mentioned as the way in which plague, when confined, will attack whole families show that many of these people owed their lives to segregation, in spite of their dissatisfaction at the process. In Bombay, among 5363 "contacts" in the segregation camps, only 131 developed plague, about 2·5 per cent. But, not only is the immediate vicinity of the patient infected, the virus has probably spread over the house area for some distance around, and all the people living and sleeping within this area, the extent of which is unknown, are liable to be attacked with the disease. The removal of these people is also necessary, and was carried out as far as possible. They were allowed to continue their business, but had to sleep in a camp.

The inhabitants having been more or less completely removed from the infected area, the next essential is the disinfection of the houses in which, as mentioned above, the virus dwells. Clothes of patients were either disinfected or burnt. Among the many disinfectants tried in the cleansing of houses, the concensus of opinion is in favour of corrosive sublimate, especially when hydrochloric acid is combined with it, and this decision is confirmed by the results of laboratory experiments, not only in test tubes, but also with the material which is met with in practice—the mixture of cowdung and mud which is such an element in the formation of the dwellings. The houses, by means of pumps, generally small hand-pumps of Chinese manufacture, were thoroughly pumped out—walls, ceilings and floors—with a 1 in 1000 solution of Hyd. Perchlor. containing a variable proportion of Hydrochloric Acid. After being left open for ten days, the houses have been almost universally lime-washed, and, it may be said at once, that the results of this somewhat costly disinfection have been altogether satisfactory. It certainly destroys the infection. The return of the people to their houses after they have been vacated for the period mentioned has been very rarely indeed followed by any of their number being attacked with plague. It does not, of course, provide against re-infection, but, at the same time, by making windows, providing for ventilation, and destroying hopelessly insanitary houses, every effort was made to improve the hygiene of the dwellings.

By these methods of inspection, of isolation, segregation, and disinfection, the Plague Committee has tried to cope with the epidemic. They have, without doubt, succeeded in limiting the mortality, but they have totally failed to exterminate the disease or even to materially diminish its spread. They have been accused, and perhaps with some justice, of carrying out their measures too harshly; but to condemn these measures in toto as has been done by some who have no alternative remedies to propose is ridiculous. They are the only methods which, considering the method of propagation of the disease, offer any chance of successfully combating it, their only fault is that they have not been and cannot be carried out to anything like perfection in Bombay.

The dissatisfaction produced by the Committee's regulations, increased by their ineffectiveness as shown by the daily returns, and finally brought to a head by a false report of compulsory corpse inspection, led to the riots of the beginning of March, during which two English soldiers were brutally beaten to death, and other Englishmen maltreated.

But the efficiency of the methods has been better tested in smaller towns, where a simpler people and a smaller area made discovery of cases easier, while the absence of the immense chawls made more efficient segregation of the neighbouring people possible.

In some of these towns concealment of cases hardly occurred, and isolation of the sick and removal of their families and of the people in the adjoining six or seven houses was carried out with the greatest vigour, and efficient disinfection performed, and yet the disease spread through the town in the same way as in Bombay, and frequently, in proportion to the population, with more severity as regards the number attacked.

When plague attacks a town, by one means only does it seem possible to get rid of it, and that is, by removing the entire population from the infected area into camps in the fields. There the people already attacked develop the disease and are isolated, but the virus does not spread. Too often the people scatter to the villages

around, to infect them in turn. This complete evacuation has been carried out in a few instances with striking success, but it is only possible in small towns, and even then causes the greatest inconvenience. In a place like Bombay, with a population of 800,000, it is obviously impossible.

What, then, are the most efficient means of combating plague in epidemic form. The saving of life effected by the segregation of the contacts, and the efficiency of disinfection, have been already pointed out.

It is also of the very greatest importance to improve the sanitary condition of the people, and so make it difficult for the virus to flourish. And this is no easy thing; their habits and customs, so contrary to all our ideas on the subject, are not newly born—they are the habits and customs which have remained almost unchanged among the people for hundreds, perhaps thousands, of years, and the inculcation of cleanliness is a matter of the greatest difficulty. But still, much could be done by gradually replacing the present unhealthy abode by better ventilated, larger and lighter dwellings, by improving the drainage and by strongly repressing overcrowding. It is, without doubt, the improved conditions of daily life which have almost banished plague from Western Europe. Such improvements are preventive measures of the very highest value.

The killing of the rats is an obvious means of limiting the spread of contagion. It is, however, more easy to advise than to accomplish, and, in fact, all the efforts in this direction have proved more or less futile. One other preventive measure remains, the most recent, viz., preventive inoculation. A curative serum of any value has not yet been discovered, and the same holds of a preventive antitoxic serum. Yersin prepared such a serum, and claimed good results, but the cases he was so successful with were probably mild ones occurring during the decrease of the epidemic. The value of his serum has been since quite disproved.

The results, however, of the inoculation of a sterile cultivation of the bacilli in broth, prepared by Haffkine, have been, so far, very promising. Although sufficient data for a conclusive opinion are hardly yet forthcoming, yet, as far as experience goes, the serum appears to possess considerable preventive properties.

The first experiment was made among the prisoners in the Byculla Jail. Plague had broken out. 148 were inoculated, 173 were not. Among the former there were two non-fatal cases, and among the latter twelve cases with six deaths. A year later another experiment was made in a Bombay jail, which is particularly valuable because inoculated and uninoculated were kept under precisely identical conditions. The prisoners were divided at random into two lots, and 147 were inoculated and 127 were not. Among the inoculated three developed plague, and nine of them died. Among the uninoculated ten were attacked and six died. I have collected all the statistics as far as I could up to the present, using only those which seemed to be fair, omitting, for instance, those in which a small number of people inoculated among a large population made it appear likely that the better classes only had been inoculated, the class which is not only more likely to take advantage of the process, but also least likely to contract the disease.

Among 10,000 uninoculated people 3·6 per cent. died from plague. Among 7,000 inoculated living under the same conditions and with the same chance of infection, only ·5 per cent. succumbed to the disease. These figures are very striking and indicate much more than a coincidence.

It only remains to consider what the end will be. At present the Bombay authorities know that their measures are right and necessary and have every wish to enforce them, but the people are determined not to submit to them, and no doubt the people will win.

But none of these measures, neither inoculation nor any other can exterminate plague in the city. The unaccountable law which puts a period to epidemics will limit the length of the life of this one, though doubtless not till several years have passed Then the unexplained loss of virulence which overtakes certain colonies in a culture of the bacillus, will affect the bacilli everywhere, and plague in India will for the time die, but it will not be killed.

Pass List.

Final Conjoint Examination, October, 1898.

MEDICINE, SURGERY AND MIDWIFERY.—*T. P. Berry, *H. L. Eason, *D. Rice, *W. H. M. Telling.

MEDICINE AND SURGERY.—F. E. Walker.

SURGERY AND MIDWIFERY.—*J. Harris, *F. E. Hutchinson, F. D. Turner.

MEDICINE.—*K. B. Alexander, *H. E. C. Fox, *F. H. R. Heath, *L. H. McGavin, *F. J. H. Martin, *G. C. Owsley, *J. E. Powell, F. L. Rae, *A. H. M. Saward, *H. Simson.

SURGERY.—*R. Balderston, A. H. Carter, W. R. Cazenove, A. E. Clarke, *A. W. Nourse, *S. B. Pennington, R. J. Pritchard, *W. S. Richardson, *L. T. A. Rowland, T. M. Walker.

MIDWIFERY.—G. Beley, W. H. Edwards, E. A. Longhurst, J. L. Payne, A. Reid, E. R. Row, J. G. Taylor, C. F. Watson, W. E. Waymark.

* Denotes completion of Examination.

Second Conjoint Examination.

W. H. Bowen, H. A. Ehrlich, L. J. Hughes, C. B. Penny, T. H. F. Roberts, W. O. Roberts, D. W. Smith.

First Conjoint Examination.

CHEMISTRY.—J. B. Copland, E. H. Griffin, H. Johnson, C. A. E. Ring.

PRACTICAL PHARMACY.—G. C. Lowe, E. R. Row, H. S. Turner, C. F. Watson.

Guy's Hospital Students' Club.

THE October General Meeting of the Students' Club was held on Thursday, October 28th, at 4 p.m., in the Surgical class-room. Dr. Pye-Smith occupied the chair, and there were about thirty members present.

The balance sheet for the past year was laid before the meeting. The Hon. Secretary, in the absence of the Hon. Treasurer, after reading through the various details, explained to the meeting that the balance of £61 4s. 5d., as shown on the balance sheet, did not in reality mean that the club had that amount to their credit, as the sum of £53 11s. 6d. was due to depositors to the club library. The additions that had been made to the club during the past year included the re-lighting of the reading-room, and placing therein three new easy chairs for the use of members. The whole of the furniture in the smoking-room had also been upholstered.

The auditor, Mr. Fremantle, then informed the meeting that he was completely satisfied with the way in which the balance sheet had been prepared, and also as to the expenditure of the Clubs' Union grant. A resolution that the balance sheet be approved and accepted was duly proposed, seconded, and carried unanimously.

An Extraordinary General Meeting of the Club was held on Thursday, November 3rd, in the Physiological theatre, to consider the question of smoking in the dining-room. Dr. Pye-Smith occupied the chair. There were ninety-nine members present.

Mr. McGavin proposed and Mr. Cazenove seconded the motion which was as follows: "That smoking be allowed in the dining-hall between 3.30 and 5.30 p.m."

The subject was very thoroughly discussed on both sides, Messrs. Wilkin and Walker, in addition to the proposers, speaking in its favour; and Messrs. Cross, Gibson, Cleveland, Spon and Symonds, against the proposal.

On the motion being put to the vote by the chairman it was negatived by a large majority, 84 voting against it and 15 in its favour.

Statement of Receipts and Expenditure from September 1st, 1897, to August 31st, 1898.

RECEIPTS.

Sept. 1st, 1897.	£ s. d.	£ s. d.
To Balance at Bankers	38 4 4	
Balance of Petty Cash in hand...	0 5 3	
		38 9 7
August 31st, 1898.		
To Cash received, per Club's Union Account—Rent ...		156 4 6
" " Grant ...		180 0 0
" " On Library Account—		
Deposits ...	8 18 6	
Fines	1 2 6	
Sale of Papers...	1 19 0	
" Catalogues	0 10 0	
		12 10 0
To Cash received—Pavy Gymnasium—		
Locker deposit a/c		0 15 0
Surplus a/c, 1897–98		0 6 0
" " Sale of wine, beer and tobacco		435 1 9
		£823 6 10

EXPENDITURE.

August 31st, 1898.	£ s. d.	£ s. d.
By Cash paid—Furnishing account		44 17 0
" " Newspapers, magazines, etc.	30 2 5	
" " Printing & stationery	2 17 3	
" " Sundry disbursements	29 3 3	
" " Petty Cash "	1 11 4	
		63 14 3
" " On Gymnasium a/c—		
Honorary Secretary (see Contra) ...	21 0 0	
Cleaning & lighting	7 16 0	
		28 16 0
" " On Library Account—		
Mudie' subscription	5 5 0	
Librarian	12 0 0	
Deposits returned...	6 16 6	
		24 1 6
" " Rent Account ...123	0 0	
" ... 33	4 6	
		156 4 6
" " On Repairs Account—		
Relighting reading-room		7 9 6
" " Insurance		0 12 0
" " Pavy Gymnasium—		
Locker deposit returned		0 2 0
" " Cost of wine, beer, etc. 221	6 11	
" " Steward's allowances 213	14 10	
		435 1 9
By Cash balance at Bankers ... 61	14 5	
" Petty Cash balance in hand ... 0	13 11	
		62 8 4
		£823 6 10

Audited on behalf of the Clubs' Union and found correct by

(Signed) FRANCIS E. FREMANTLE.

October 25th, 1898.

From the Gazette's Special Pathologist.

S. W., MIDDLESBORO'.—No tubercle bacilli could be found in the sputum.

H., RAMSGATE.—No tubercle bacilli could be found in the sputum.

E. R. M., HASTINGS.—A very few tubercle bacilli are present in the sputum.

R. S. A., ST. PETER'S PARK.—The growth on blood serum after incubation consists of staphylococci and a short straight rod that has a tendency to appear as a diplobacillus. No Klebs-Löffler bacilli are found.

J. & R., FORDINGBRIDGE.—This specimen was dried up on arrival and quite useless for examination.

PATHOLOGIST.

Reviews.

Hygiene and Public Health. By Louis C. Parkes, M.D. (H. K. Lewis,), pp. 550, 10s. 6d. net.

It appears to be given to no one to write a perfect book, and Dr. Parkes is no exception to the general rule. This manual is well conceived, and written in a way which is easy to read and understand. We always feel disappointed, however, whenever we read the book, that being so excellent it is not more excellent. Throughout the pages there are many little things which might have been expressed differently, and others which might have been given more correctly. We do not think that there are more of these inaccuracies than in any other similar work, but we feel that they ought not to be there at all in this one.

To give a few examples of what we mean: Dr. Parkes gives a table showing the constitution of water derived from various sources, but instead of giving analysis similar to those which are done by the great majority of analysts, he gives a list *a la* Frankland; this may be quite accurate and very interesting, but so was the account of the etiology of phthisis before the discovery of the tubercle bacillus. Four partial analyses are given, but even in these the nitrates are not given for sewage effluent.

We are told that Montgolfier's formula is founded on the dynamical law, "that the velocity in part per second of falling bodies is equal to eight times the square root of the height through which they have fallen." In the first place, we think the old formula we learnt at school might have been used, and, secondly, $\sqrt{2g}$ is not 8, although for all practical ventilation problems it may be taken as 8.

We think that the cysticercus cellulosæ is very rare in the ox; certainly beef-eaters do not get the tænia solium.

Speaking of tubercle he says: (1) The bacillus tuberculosis in found in all tubercular deposits. We wish it were! And (2) They (*i.e.*, the bacilli) readily undergo spore formation. *Readily* is surely a little too dogmatic.

"From vaccine lymph a streptococcus has been isolated which is believed to be the specific organism of vaccinia." "A streptococcus is believed to be the specific microbe of scarlet fever." "In ulcerative endocarditis a micrococcus has been observed in the endocardial ulcerations." "From acute abscesses, boils, carbuncles, the abscesses of pyæmia, acute osteo-myelitis, and puerperal fever, the staphylococcus pyogenes aureus and albus have been obtained." These four extracts all occur within one page. We think they are hardly 1898 form.

The vibrio of cholera is correct, whereas the comma *bacillus* is incorrect.

The diagrams—and we wish there were more—are generally good. There is one very great exception, the cysticercus, on page 356, which we are sorry to say, is the worst illustration of its kind we have ever seen.

In spite of these errors the book is one to be recommended, and when these are expunged, as we hope they may be, it will be a really good book.

Sport.

Rugby Football.

GUY'S v. CAMBRIDGE UNIVERSITY.

This match was played on Wednesday, November 2nd, in miserable weather; a high wind was blowing down the field, and there were occasional showers, while the ground was very sodden from the morning's rain.

With the wind at their backs, Guy's pressed at once, and the forwards, going off with much vigour, invested the 'Varsity quarters; Sime secured the ball and made a dash for the opposing line, but had the misfortune to lose his footing at the critical moment, and was unable to transfer to O'Brien and Rae who were backing up. After a scrum close to the posts, Bennett touched down.

From the kick-out the Cambridge forwards rushed the ball into Guy's twenty-five; our own forwards were at this time rather weak in their packing, and the back row failed to hold the ball when it was heeled back, the result was that after five minutes' scrumming, Fasson got the ball well away to his three-quarters, and a fine round of passing resulted in Bennett scoring near the touch-line, while Campbell put on the finishing touch with a magnificent kick against a strong wind. Guy's now rushed the ball down well into the 'Varsity twenty-five, and Thomas looked like scoring, but Rottenburg was able to touch down. A scrum took place in front of goal, from which the halves got away to our twenty-five, Hilton relieved with a good kick, and following up, tackled Pilkington well, but the latter was playing in fine style, and again taking the ball smartly, scored a somewhat lucky try in the corner; Campbell this time failed to enhance the score.

Play was now even for some time, the forwards on both sides playing well, and half-time found the 'Varsity with 8 points to the good. In the second spell, play was of a closer description, as the Hospital forwards packed better, and getting first shove, at times wheeled in good style. For some time after the kick-off the scrums vacillated in midfield, then the Cantabs invaded Guy's twenty-five, but Ransford marked well, and found touch at the half-way flag. The 'Varsity, however, kept up the pressure, and after Ayre-Smith by some good foot-work had gained a short respite, a good bout of passing between Jones, Collett and Pilkington ended in the last named scoring in brilliant fashion; Campbell kicked well, but again failed to convert. For about ten minutes' continuous scrumming took place in the Hospital twenty-five, and a further dangerous attack by Fasson, Pilkington and Collett was well stopped about five yards from the line. Our halves by good defensive work prevented further scoring, and O'Brien with a useful run and kick into

touch, transferred the play to mid-field. The 'Varsity again got down to the Hospital line, but our forwards worked the ball back to the twenty-five yards flag, and a well-contested game ended in a victory for Cambridge by 1 goal and 2 tries (11 points), to nil. Mr. Gardiner refereed in his usual efficient and genial fashion.

REMARKS.—Although beaten, our team has the satisfaction of knowing that it gave a strong side, which included nine old "Blues," a very good game. The forwards were somewhat ragged towards the end of the first spell, and frequently failed to keep control of the ball when secured by their front row, their packing, however, improved as the game proceeded, and they wheeled at times in their best style. Mullins and Trail were perhaps the pick of the pack; while Ayre-Smith, Thomas and Cutler were most conspicuous in the loose play. The halves both tackled well, and F. C. Wetherell put in some good foot-work. The three-quarters individually played well, but showed a lack of combination which contrasted with the fine display of the opposing four in this respect. Sime and Rae were often dangerous in attack, and O'Brien fully justified his selection by some fine kicking, he should prove a useful centre when more accustomed to his colleagues. Ransford at full-back had a busy time, and tackled well.

GUY'S v. ROSSLYN PARK.

The Hospital team was once more victorious in this match, which was played at Honor Oak Park on Saturday, November 5th, under the best conditions of weather and ground.

The Park, losing the toss, kicked off against the wind, and Guy's, by good work among the forwards, and three-quarters, immediately pressed.

The halves, getting the ball smartly away from the scrum, fed their three-quarters well, and, as the latter were passing excellently, Rae and Sime on more than one occasion looked dangerous. First blood was, however, drawn by the forwards, Shorland scoring a try from the scrum, but Thomas failed with the kick. Soon afterwards Pye-Smith got well away, but was tackled before he could pass. O'Brien nearly succeeded in adding a goal to the score by a well-judged kick, which needed a little more elevation, as it struck the cross bar in the centre, and a touch-down resulted. Some smart passing was effected by both forwards and backs, and the visitors' line was often threatened, but no further score resulted up to half-time.

On the resumption of play O'Brien started a good round of passing, which ended in Rae being tackled by Hood when close on the line. Guy's pack were still decidedly the stronger, and a series of scrums followed in the visitors' territory, F. E. Walker playing a fine defensive game, repeatedly frustrating the efforts of our halves, and he was assisted by somewhat slovenly heeling out, and erratic passing back from the scrum. Shorland got well away and passed to Cutler, but the latter was tackled near the line. O'Brien, Pye-Smith, Rae and Sime also put in good work, but the Park defence was not broken until T. P. Thomas got in from a scrum. O'Brien took the kick but did not increase the score. Sime then made a good run, just losing the ball at the corner flag. There was no further chance of scoring as Rosslyn Park made strenuous efforts to equalise matters, being, however, unable to break through the Hospital defence, and the game ended in favour of Guy's by 2 tries (6 points) to nil. Team:—

GUY'S.—A. C. Ransford (back); F. L. Rae, F. W. Sime, T. O'Brien, C. D. Pye-Smith (three-quarter backs); F. D. S. Jackson, C. Watson-Smyth (half-backs); R. C. Mullins, D. H. Trail, A. A. Smith, H. A. Cutler, G. Shorland, K. V. Trubshaw, H. S. French, T. P. Thomas (forwards). Referee: Mr. H. C. Green.

REMARKS.—The game, though at times productive of good all-round play, was, on the whole, somewhat disappointing, as our team did not make the most of their many opportunities.

The forwards played with vigour and dash up to a certain point, and then pursued a policy of inactivity, instead of heeling out smartly and cleanly. The line-out work was clumsy at times, hand balling being frequent; the forward rushes and passing were, however, sometimes excellent, Trubshaw, Thomas, Shorland and Mullins being most often conspicuous.

Jackson tackled well at half, and at the beginning of the game led his three-quarters with much judgment, but latterly lost time in tossing the ball, instead of passing it sharp and low. Watson-Smyth, too, kept rather far from the scrum when attacking. The three-quarters were all good and played a combined game, the passing being much better than usual. Pye-Smith tackled rather high, and in consequence failed more than once to secure his man, but both he and O'Brien made some good openings for the wings. Ransford had little to do, and was inclined to defer his kick too long.

GUY'S v. CROYDON.

The first meeting of the above teams attracted an unusually large attendance at the Whitehorse Road ground on Saturday, when Croydon won an interesting game by 18 points to 10. Although the rain held off, the turf was on the soft side, and the light very bad. The visiting fifteen put in a punctual appearance, and, following Mr. Rowland Hill's recent advice, the start was made to the minute of the time advertised. The visitors played a very taking game forward, where their heeling and wheeling were much admired, and their handling at times was most effective, but Croydon proved the smarter team at three-quarters, and, lasting better than their opponents, were fully entitled to their victory. The opening exchanges ruled fairly even, but on settling down the visitors' superior weight had immediate effect, and after capital handling by the halves and three-quarters, Guy's scored a try through Cutler, which Mullins failed to convert. On resuming, the Hospital forwards fed their halves admirably, but Patey tackled most resolutely, and averted danger. Croydon next essayed the passing game, and smart work by Blunt, Moore and Cocq transferred play to the visitors' half, where O'Dowda, from a

free kick, landed a fine penalty goal. From the kick-off Moore got away to Ransford, but grand passing by Guy's led to within an ace of scoring. Marples broke away, and Patey, from a pass by Blunt, scored a brilliant try, feinting and swerving past all his opponents from near the half-way line. O'Dowda placed a fine goal. In the second moiety excitement reached a high pitch, as first one side and then the other seemed certain of scoring, Wetherell, Sime, and Rae working capitally for the visitors, who suffered a severe loss when Ransford retired injured. Then, from a long pass by Moore, Lawson ran in, and again O'Dowda negotiated, but though short-handed, and ten points in arrears, Guy's worked most pluckily, and after a brilliant run by Sime, Thomas gained a smart try, though he failed to improve. Finely-judged kicking by Trollope enabled Croydon to attack, and Marples scored an easy try, which O'Dowda again sent over the bar, yet the visitors were not done with, and the back division once more invaded, and from a heel mark Thomas kicked a magnificent goal. That ended the scoring, and thus Croydon won by 4 goals (one penalty), to 1 goal and 2 tries, or 18 points to 10. Team:—

GUY'S.—A. C. Ransford (back); F. L. Rae, F. W. Sime, C. T. Hilton, J. H. Wilkes (three-quarter backs); M. C. Wetherell, G. W. Smith (half-backs); R. C. Mullins, D. H. Trail, A. A. Smith, H. A. Cutler, T. P. Thomas, G. Shorland, K. V. Trubshaw, A. H. E. Wall (forwards).

GUY'S v. EAST SHEEN.

With a somewhat weak team we encountered East Sheen at Richmond on Wednesday, November 16th. The ground was in excellent condition, but the second half of the game was considerably shortened owing to the arrival of a dense fog.

The forwards were fairly well matched, but both at half and at three-quarter our opponents were stronger. The result was a win for East Sheen by 2 goals (one dropped) and 1 try (12 points) to 2 tries (six points). Team:—

GUY'S.—E. N. Jupp (back); F. L. Rae, H. V. Bagshawe, C. D. Pye-Smith and F. J. Pierce (three-quarter backs); F. D. S. Jackson and C. W. Smith (half-backs); H. A. Cutler, A. H. E. Wall, A. R. Thompson, R. C. Lawry, G. Shorland, K. V. Trubshaw, E. H. B. Milsom and H. S. French, (forwards).

GUY'S "A" v. ROSSLYN PARK "A."

This match was played at the Old Deer Park, Richmond, on Saturday, November 5th, and resulted in a win for Guy's by 2 tries to nil. The Hospital were one man short throughout the game. The opening half was evenly contested, neither side being able to score, but during the second half tries were obtained by F. J. Pearce and M. D. Wood. The kicks were unsuccessful. Team:—

GUY'S.—E. N. Jupp (back); J. H. Wilkes, H. V. Bagshawe, G. Evans, F. J. Pearce (three-quarter backs); W. Jarvis, J. M. Brydone (half-backs); R. C. Lawry, A. H. E. Wall, D. P. Watson, C. J. Pinching, E. H. B. Milsom, H. G. Rashleigh, M. D. Wood (forwards).

GUY'S "A" v. CROYDON "A."

Played at Honor Oak on Saturday, November 12th, and won by the Hospital by 1 goal and 2 tries to nil. The weather was fine, but the ground rather greasy.

At the outset of the game it was perfectly obvious that Croydon, who were one short, were utterly unable to hold the home forwards. Up to half-time no score was recorded, though on two occasions Guy's should have scored, Pye-Smith failing to pass on one occasion, and to get in himself on another. In the second half Croydon were unable to hold them at all forward, and the home side scored three times (Glendenning twice and Pierce). Jarvis converted one try.

The forwards played splendidly throughout. As a whole they packed extremely well, got the ball and let it out well. In the loose they were irresistible, Manson, Milsom and Watson being particularly prominent. There was no shirking, and the play throughout forward was up to a very high standard. Starting at a great pace, they kept it up splendidly till in the last twenty minutes the Croydon forwards completely "cracked up."

A splendid rush from their own twenty-five across the ground culminating in a fine try by Pierce, was the best piece of play of the day. Milsom and Glendenning both played well, but occasionally do not look where they are packing. The outsides were disappointing, and did not make use of their frequent opportunities. It was not till they had the other side completely beaten that they did much.

Bagshawe and Jarvis played well at half, but did not keep the three-quarters sufficiently in view, breaking through well, but running away from their three-quarters. They both tackle well and mark their opposing half, but neither takes the scrum at all well, nor passes with sufficient precision.

The three-quarters passed fairly well and kicked extremely well, especially Pye-Smith and Evans. Their defence was never tested. Pye-Smith does not make any openings for his wing, and is too anxious to get it. He gave his wing no opportunity of scoring in the first half when he had two distinct openings. His tackling has improved, and he fields the ball well. Jupp played well at back. The outsides were considerably hampered by the fine display of tackling by the Croydon halves, though one was frequently off-side. Team:—

GUY'S.—E. N. Jupp (back); F. J. Pierce, C. D. Pye-Smith, G. Evans, J. T. Hicks (three-quarter backs); H. V. Bagshawe, W. Jarvis (half-backs); R. C. Lawry, M. D. Wood, D. P. Watson, H. S. French, A. Thompson, G. Milsom, B. Glendenning, P. T. Manson (forwards).

GUY'S 3RD XV. v. BLACKHEATH PROPRIETARY SCHOOL.

This match was played on November 5th. After a game much spoiled by the off-side play of the opposing halves, we won by 2 tries to nothing. Early in the first half Louisson made a good attempt to drop a goal, which unfortunately touched someone. The passing of the three-quarters was very bad now, several good chances of

scoring being thrown away. After half-time Witcomb succeeded in getting through behind the posts. The kick, however, was unsuccessful. Later the combination of the three-quarters improved immensely, and Witcomb scored again wide out. Bridger made a good attempt to convert. We nearly scored again, being frequently pulled up for doubtful "forward." Hicks and Witcomb played well, the former making several very good runs. The halves played well, but Louisson is much too fond of keeping the ball to himself. The forwards packed well and shoved the opposing back all over the field, but still there could be improvement in the heeling. Shannon did not turn up and we had to get a substitute on the ground. Team:—

GUY'S.—R. P. Bridger (back); J. T. Hicks, C. H. Remhold, O. P. Dignum, C. P. Witcomb (three-quarter backs); G. S. C. Hayes and M. D. Louisson (half-backs); B. Glendenning, A. W. Gater, G. Nunn, L. Moiser, H. Parrott, W. W. Jones, A. N. Other and M. A. Collins (forwards).

GUY'S 3RD XV. v. BATTERSEA "A."

This match was played on November 12th. After a scrambling game Guy's won by a goal (try by Witcomb), to a try, all the scoring being done in the first half. Team:—

GUY'S.—R. P. Bridger (back); O. Travers, C. A. E. Ring, C. H. Remhold, C. F. Witcomb (three-quarter backs); A. Kynaston and M. Willan (half-backs); A. W. Gater, W. W. Jones, H. Parrott, H. D. Smart,. O. P. Degnum, G. T. Collins, A. Dewdney and M. A. Collins forwards).

Association Football.

GUY'S v. ST. LEONARDS.

This match was played at St. Leonards on November 5th. The morning had been showery, and there had not been sufficient sunshine to dry the ground, which was consequently in a very sloppy condition, especially over a considerable area in one corner where turf was conspicuous by its absence; in spite of this disadvantage, however, the game was far from slow, and as both sides had managed to bring good representative teams on the ground, the spectators, who turned up in good force in spite of counter attractions at Hastings, were able to witness an excellent game. Play was commenced punctually at 2.45, Guy's playing against the wind during the first half; the St. Leonards' forwards at once took the ball away with a rush; Robson relieved, but for some minutes St. Leonards had the best of the game, giving our backs plenty to do, and it was not until the home men had put in a clinking shot just under the bar, which our custodian was quite unable to deal with, that Guy's thoroughly woke up and began to get into form; play then ruled very even for a time, the combination on both sides being very good. Several openings were obtained on Guy's left, but owing to the miry slough in which the forwards found themselves, they were unable to make the best use of their opportunities, and though several corners were obtained, they did not come to anything. Neither side had gained any further advantage at half-time when with the score at one to nil against Guy's, and the wind in our favour, there seemed a fair chance of pulling off the match. Again, however, Guy's seemed to take some little time in getting into working order and St. Leonards gained a corner, which Hemmings converted into a goal at short range. Soon after this Guy's pressed hard and after some exciting work in front of goal Wiltshire put the ball through from a good centre of Norton's; after this Guy's had rather the best of the game, and Mandy succeeded in equalizing; no further score being added a good game ended in a draw; had the ground been less heavy we venture to think it might have been otherwise, as Guy's were certainly the heavier lot. For Guy's Norton and Sheppard were well to the fore, and Wiltshire played a good game; the halves were also much in evidence playing with dash and judgment. The teams were as follows:—

GUY'S.—Mandy, Dent, Wiltshire, Norton and Gray (forwards); Sheppard, German and Hall (half-backs); Robson and Matthews (backs); Vincent Smith (goal).

GUY'S v. WEYBRIDGE.

Played at Weybridge on November 12th and resulted in a win for the Hospital by 4 goals to 1. The team is to be congratulated on its success in the match, this being the first time that it has beaten Weybridge since 1894. The play throughout was of a high order, the whole team playing well together, while the combination among the forwards was at times brilliant. The game from the first was very fast, each side putting in a lot of work, but Weybridge were the chief aggressors. After a hot attack by their forwards, a mistake on the part of the Hospital backs enabled their left wing to score, Smith only partially saving the shot. After this Guy's played extremely well, and time after time the halves and forwards took the ball down to the Weybridge goal, but none of the attempts at scoring were successful. At length, however, Mandy, after a brilliant run down the field, passed to Dent, who beat the goal-keeper with a low shot.

After changing ends the Weybridge forwards made many rushes, which, were, however, well broken up by our back division, and were never really dangerous. Norton, from a very good piece of forward play, gave us the lead with a good shot, and Mandy soon after put on a third goal from a centre by Gray. Norton was responsible for the fourth goal shortly before time.

In the second half Guy's out-played their opponents and had by far the greater part of the game. It should be said, however, that Weybridge were not at full strength, although they had a fairly representative team out. The Guy's team played with much greater dash than usual, and kept going all the time, which shows the benefit of training. Among the forwards Wiltshire was perhaps the most prominent, some of the runs being exceptionally fine. Mandy, on the outside right, played one of his old games, and gave the opposing backs a lot of trouble. The goal he scored was a very fine one, and gave the goal-keeper no chance at all.

The halves played well together and fed their forwards well. Germain should shoot more and not dribble quite so much.

Both backs played well. Robson has improved considerably, and is always reliable.

Shepherd went from half to full back and showed that he is as good in the new position as in the old. His tackling is good, as is also his kicking. With more experience, and the development of more pace, he should fill the vacancy at left back well.

Smith, in goal, had not very much to do. He does not clear neatly, nor does he always know what to do in a rush, and wants a considerable amount of practice. Team:—

GUY'S.—F. M. V. Smith (goal); W. M. Robson, N. P. Shepherd (backs); R. W. B. Hall (captain), H. B. Germain, O. Bardell (halves); P. S. Mandy, H. L. Dent, H. P. Wiltshire, L. Norton, A. C. H. Gray (forwards).

GUY'S 2ND XI. v. SOUTH KENSINGTON ENGINEERING SCHOOL.

This match was played at Honor Oak Park on Saturday, November 5th, and resulted in a win for the Hospital by 6 goals to none. The team seemed to be quite at the top of their game, and have never given a better exhibition, the combination among the forwards and halves being splendid. D. G. Greenfield has never been seen to greater advantage than when "holding up" their centre forward, Fernie. We should like to suggest that Lacey and Rust learn to shoot harder and without waiting so long, when in front of goal. On their form shown to-day, the team should have no difficulty in easily defeating Balham School in the second round of the Surrey Junior Cup. Team:—

GUY'S.—J. J. Gardiner (goal); W. F. Box and W. H. Edmonds (backs); T. G. Miles, D. G. Greenfield (capt.) and P. P. Cole (half-backs); P. W. L. Camps, H. K. Lacey, W. O. Roberts, B. Rust and P. A. Peall (forwards).

GUY'S 2ND XI. v. ST. GEORGE'S.

Played at Honor Oak Park on Wednesday 9th instant. The ground was not all that could be desired, and this coupled with the fact that our opponents were none too strong may account for the rather slack game. George's kicked off, and almost immediately Guy's began to press. Fifteen minutes after starting Guy's gained their first point, and soon afterwards a good corner from Cole resulted in Lacey putting the ball in the net. Give and take play then ensued, and just before half-time George's obtained their only goal. Morris who made an efficient substitute in the centre, resumed, and soon afterwards headed the ball into the net, smartly. Early in the second half one of George's men twisted his knee and retired. At the finish Guy's left the field winning by 6 goals to 1. Of the home team Lacey, Peall, Greenfield and Edmonds were the best. The forwards must be quicker on the ball, and some of them should be more careful with regard to the rule concerning hands. Team:—

GUY'S.—J. J. Gardiner (goal); A. Pearson, W. H. Edmonds (backs); R. C. Witcomb, D. G. Greenfield, P. P. Cole (half-backs); P. W. L. Camps, H. K. Lacey, F. Morris, B. Rust, P. A. Peall (forwards).

GUY'S 3RD XI. v. EWELL 3RD XI.

This match was played at Ewell on November 5th, and resulted in an easy win for Guy's by 9 goals to 2. The game, as the score shows, was one-sided throughout, and goals were scored by Turner (5), Ash (2), Morris and Wallis. Carter in goal had hard luck in not saving at least one of our opponents' goals. Team:—

GUY'S.—H. Carter (goal); J. W. Gromitt and J. Braithwaite (backs); —. Copland, R. C. Witcomb and P. R. Bolus (half-backs); —. Solomon, V. Wallis, A. H. Turner, J. R. S. Ash and F. Morris (forwards).

GUY'S 3RD XI. v. LEE 3RD XI.

This match played at Lee on November 12th, resulted in a win for Guy's by 4 goals to 1. The shooting of Ash, at centre-forward was very good. Goals were obtained by Ash (2) and Carlisle (2). Team:—

GUY'S.—H. Carter (goal); W. F. Box and J. Braithwaite (backs); J. W. Gromitt, R. C. Witcomb and R. Franklin (half-backs); F. Morris, A. H. Turner, J. R. S. Ash, G. Carlisle and —. Gaffney (forwards).

Appointments.

CIVIL.

BOWES, W. H., M.D., B.S. Lond., F.R.C.S. Eng., has been appointed Medical Superintendent of the Plymouth Borough Lunatic Asylum.

LOVEDAY, W. D., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer for the Hendred Sanitary District of the Wantage Union.

MASON, S. HERBERT, L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Swansea Hospital.

TYSON, W., M.B, B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed an Assistant Surgeon to the Lowestoft Hospital.

DECORATION.

War Office, 15th November, 1898.

The Queen has been graciously pleased to nominate and appoint Captain CHARLES STUART SPONG, Royal Army Medical Corps, serving with the Egyptian Army, to be a Companion of the Distinguished Service Order in recognition of his services on the Atbara and before Omdurman.

Births.

YOUNG.—On November 4th, at 45, Stamford Hill, the wife of John Young, M.D., B.S. Lond., of a daughter.

RYGATE.—On November 16th, at Witham Abbey, Essex, the wife of H. B. Rygate, B.A., M.B., B.S., of a son.

Deaths.

BENNETT.—On October 22nd, at Kensington House, Haverfordwest, Charles Vaughan Symmonds Bennett, M.R.C.S., L.S.A., J.P., aged 62.

PRENDERGAST.—On October 19th, at Rue Volney, Paris, J. M. Vincent Prendergast, M.D., M.R.C.P., aged 43.

WOODHAMS.—On November 3rd, suddenly, at 1, Park Place, Gravesend, Sidney Woodhams, M.R.C.S., L.R.C.P. Lond., aged 34, fourth and dearly beloved son of W. Woodhams, The Limes, Rochester.

ED.—H. L. E.

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Calendar of Coming Events.

December.

Sat. 3.—Messrs. Lucas and Lane's take in; Drs., W. G. Stewart and D. P. Watson; Cl., G. C. Owsley.
1.15 p.m., Clinical lecture by Dr. Hale White.
G.H.R.F.C., I., (With St. Thomas's) Blackheath, away.
G.H.R.F.C. II., Beckenham, home.
G.H.A.F.C., I., Crouch End Vampires, home.
G.H.A.F.C., II., Kenley, away.

Mon. 5.—Examinations of M.D. and M.S. Lond., begin.

Tues. 6.—Mr. Rowell's Demonstration on Anæsthetics at 12.0 noon.

Wed. 7.—Messrs. Golding-Bird and Dunn's take-in; Drs., R. M. Barron and W. B. Secretan; Cl., E. W. S. Rowland.
1.30 p.m., Clinical lecture by Mr. Howse.
G.H.A.F.C., I., Emeriti, home.
Last day for applying for Dental House Surgeon and Assistant Dental House Surgeon.

Thur. 8.—January Appointment List closed.
G.H.M.P.U., Address by Lieut.-General H. A. Brownlow.

Sat. 10.—1.15 p.m., Clinical lecture by Dr. Hale White.
G.H.R.F.C., I., Catford Bridge, away.
II., L. & W. Bank, away.
G.H.A.F.C. I., Reigate Priory, away.
II., Old Cranleighans, home.
G.H.P.P.S., Clinical Meeting.
Application to Medical Officer for Schedules for the First and Second Conjoint Examinations to be made not later than this date.
Last day of applying to Registrar for Form of Entry for Prelim. Scientific, and Intermediate M.B. Lond. Examinations.

Mon. 12.—Cambridge First and Second M.B. Exams. begin.

Wed. 14.—1.30 p.m., Clinical lecture by Mr. Howse.
Messrs. Howse and Jacobson's take-in; Drs., M. A. Alabone and A. H. Davies; Cl., H. E. C. Fox.

Thur. 15.—G.H.M.P.U., Devotional Meeting.

Sat. 17.—1.15 p.m., Clinical Lecture by Dr. Hale White.
G.H.R.F.C., London Scottish, away.
Schedules for First Conjoint Exams. to be left at the Medical Office not later than this date.
Lectures cease.

Guy's Hospital Gazette,

DECEMBER 3, 1898.

A Case of Cerebral Tumour.

CLINICAL LECTURE BY Dr. PYE-SMITH.

November 5th, 1898.

Gentlemen,—You will remember that in the first lecture this session I referred to a case of tumour in the brain in a girl, and you will find it instructive to compare it with a case which, I fear, is also a tumour of the brain, in a boy fourteen years old.

He is a schoolboy and comes from New Cross. The family history is good, and he appears to have been healthy until his present illness. Some months ago he had a severe fall on the curbstone and cut his head.

Then he began to suffer from headache, from about seven months ago. That was his first complaint, and it has lasted more or less ever since. Persistent severe headache, that will not let the patient sleep at night, such as this boy has, is either meagrim or neuralgia, or disease of the brain. Well, this boy has suffered from headache persisting for months, generally occipital, but sometimes frontal, and often accompanied by vomiting. Lately he has had fits, and on one occasion was unconscious. He has frequently been attacked with giddiness, and his sight is impaired. When we examine his eyes we find there is no squint, no difference between the pupils, and no ptosis. But there is decided optic neuritis of both discs; we do not all agree as to the extent or degree of it. I would be satisfied to say that it is optic neuritis, but not complete atrophy. I asked Mr. Brailey's opinion on this point, and he says it is optic neuritis of a kind associated with tumour, and not with meningitis. Well, then, he has had persistent pain in the head, vertigo or giddiness, vomiting, and double optic neuritis. This last, remember, does not always cause blindness; patients may still see when it has gone on to

optic atrophy, but sight is sooner or later impaired, and at length is completely lost.

Those are four symptoms that point to either tumour or abscess of the brain, not hæmorrhage and not meningitis. The history of a severe fall on the head makes it quite possible for it to be an abscess, and the duration of the illness does not exclude this diagnosis.

In cases of diseases of the nervous system, first ask yourself, Is the patient shamming? This boy is a bright, intelligent lad, and one whom you would not expect to sham. But, apart from that, some of the symptoms cannot be pretended. He has had several fits since he came into the wards, and has been watched by skilled observers, and certainly they were genuine.

Secondly, is it hysteria? A very different thing from deliberate imposture. The patient is just at the age when boys are hysterical, but the symptoms are not in the least like it, and so we may put that on one side.

Next ask yourself, Is the case functional in the sense that epilepsy is functional? I am afraid not. True epilepsy does not produce optic neuritis, nor vertigo, nor persistent headache, nor repeated vomiting. The patient has eclampsia, and the fits he suffers from are not quite those of Jacksonian epilepsy, as it is called after Dr. Hughlings Jackson, for he does lose consciousness, and they are not followed by paralysis. But the fits last sometimes half-an-hour; there is partial loss of consciousness in some of them, and the order of spasm is not that of true epilepsy.

Thirdly, you must not forget toxic causes of disease. Opium, or lead, or belladonna, or alcohol may cause severe or fatal nervous symptoms, and leave no trace behind. But in the case of this lad there is no evidence of any of these poisons being present, nor are the symptoms such as any toxic condition can produce. The diagnosis lies between chronic abscess and tumour of the brain, and I believe he has the latter.

And we have now to inquire what part of the brain is affected, often a very difficult inquiry. It is not the base of the brain where syphilitic meningitis and gummata affect the third nerve. It is not the motor tract as, in the case of the girl, where there are marked hemiplegia, and we found a cyst in the internal capsule.

This lad has no paralysis at all, and the convulsions are general, not unilateral or localised. The greater part of the frontal lobe, a part of the parietal lobe, the temporo-sphenoidal lobe, and almost all the occipital lobe, any of these may be the seat of the tumour. Hæmorrhage is by far most frequent in the parts supplied by the branch of the middle cerebral artery to the corpus striatum and thalamus, but tumours are quite haphazard and may happen anywhere. In this case, however, I am inclined to place the lesion in none of these parts of the brain diseased, but in the cerebellum.

And the reasons are these:—Firstly, he is still under puberty, and, as a matter of experience, cerebellar tumours are commoner in children than in adults, and commoner in children than any other tumour. The occipital pain from which he chiefly suffers is not conclusive evidence that such is the case. I have seen it in a case where other symptoms pointed so decidedly to the frontal lobe on the left side that I asked Mr. Lucas to trephine there, and we found a tumour in the frontal lobe. Also, an occipital tumour may cause frontal headache, and in this particular case the patient has generally occipital, not frontal, headache.

Further, there is early defect of vision. Any cerebral tumour may lead to that, but I think those in the cerebellum cause it sooner. Moreover, he has a gait which reminds one of cerebellar cases. It is like a drunken man's gait, or that of a man walking on a ship when there is a good deal of rolling, very different from the gait of tabes. In this case the reeling is not well marked, but it looks as if it may develope into that.

Returning to consider the nature of the lesion, if it is a tumour of the cerebellum it is more likely to be tuberculous than anything else. He has no sign of tubercle, his lymph glands and lungs and other organs are healthy, and it is quite possible that it is a glioma, or it may be a cyst. I have seen cysts more than once in the cerebellum, I have seen a glioma two or three times, but a tuberculous tumour I have seen frequently.

The prognosis is, I am afraid, a bad one. Nothing but ingravescent symptoms will result in this case.

The treatment, also, I am afraid I must say, is hopeless. One would be willing to try anything that promised recovery, but I do not think one would be justified in putting this boy to much pain or misery, unless there were some more prospect than there is of relieving him. What could we do? He has not got a syphilitic gumma, and mercury would do no good in a case of glioma, tuberculous tumour or cyst. Iodide of Potassium in large doses would make him as uncomfortable as mercury, and, I am afraid, would not do any good. Some advise

arsenic wherever they think there is an inaccessible growth. It occasionally does good in cases of lymphoma, and even cancers, but I do not believe that poisoning with arsenic would have any effect upon tubercle, or glioma, or cyst.

Then you say, What about surgery? I am afraid not a great deal. As to an operation, we must remember that the cerebellum is difficult to get at, and even if I am right in supposing the tumour to be in that structure I do not at all know which hemisphere is affected or whether the tumour or cyst would be found in the superior or the vermiform process. When you can fix with some certainty the seat of a tumour, by help of convulsions, paralysis, or other localising symptoms, then by all means let trephining be tried. In the case of an abscess, that is often a splendid success for surgery. But very few cerebral tumours, as Dr. White showed in his article in our Reports for 1888, are so placed as to be capable of removal even if their seat were ascertained.

I do not see any other probable conclusion as to prognosis or as to treatment. But I hope you are already feeling dissatisfied with what I have said as to both. You put yourselves in the patient's place and feel how you would rebel against such a sentence, and if the patient were one you loved you would ask whether the case was absolutely hopeless and whether nothing could be done. Such sympathy with those who come to you for help goes a long way to make you good physicians, and the intolerance young men feel for the helplessness of therapeutics is the chief ground for our confidence in progress.

So let us look not at what is probable, but at what is possible. In the first place, our diagnosis on which prognosis and treatment rest may be wrong; I hope it is. You may remember a case I mentioned in a previous lecture of a patient with severe headache, vertigo, vomiting and double optic neuritis, who completely recovered and thus happily falsified my diagnosis.

In the second place, admitting the presence of a tumour, this is not always absolutely fatal. In two cases I have seen this. One was a child of four or five whom I saw at Witley many years ago with all the symptoms of cerebral growth. She recovered with loss of sight, and lived to the age of seventeen or eighteen. The other was a child of two or three with the same symptoms in Miriam ward. She also recovered and went home with optic atrophy, and six or seven years afterwards the sister of the ward recognized her in a blind patient who went through an attack of enteric fever in the same ward.

Again, it is possible that localizing symptoms may appear which will justify an exploratory operation, and that this will prove one of the few cases in which such an operation is successful.

Lastly, if at present curative treatment is not possible, we must never abandon a patient while we can relieve. *La medicine guérit quelque fois, elle soulage souvent, elle console toujours.* In this case we can relieve the headache with Potassium Bromide and an occasional purge, and hope for the best. [P.S.—Under treatment the lad lost his headache, was able to get up and left the hospital decidedly relieved, with promise to be readmitted if serious symptoms should return].

On the Relative Value of the Male and Female Reproductive Organs in their Relation to Operations.*

By Mr. R. CLEMENT LUCAS.

Mr. President and Gentlemen,—When your retiring President, Dr. Bindley, insisted with some importunity that I should accept the honour of delivering the opening address of your Medical Session, there was left to me but three short weeks, at a busy season, in which to arrange my thoughts; and when he gave me the distinguished names of those who in the five preceding years had opened your session, I felt still more the difficulty of doing adequate justice to the occasion.

Even the title which I suggested for the address did not convey to him any very definite ideas; but as an opening address from my point of view should be discursive rather than exact, and suggestive rather than dogmatic, the difficulty he experienced in understanding the drift of the title, and the points upon which it was my intention to touch, determined me, in accepting his courteous invitation, to retain the designation announced.

In speaking of the Relative Value of the Male and Female Reproductive Organs in their Relation to Operations, I would explain at once that I refer only to the ovaries and testes, and not to those subsidiary organs associated with the generative function, and essential for procreation, gestation, and parturition. It is to the

*An address delivered before the Willesden and District Medical Society, October 28th, 1898, at the opening of the Session.

fountain sources of generation, the sperm and germ secreting organs, to which my remarks will be confined. Either of these would furnish material sufficient for many addresses were I to refer in any detail to the various diseases to which the organs are liable, and to the surgical procedures that may be adopted for their relief. Such, however, is not my intention, but rather to refer to the marvellous influence exerted by these organs over the development of the individual, and on the maintenance or atrophy of certain sympathetically associated organs—an association or control which has led of late years to the removal of the reproductive organs for the cure of diseases situated in distant parts. It is in this newly-opened "sphere of influence," if I may adopt the modern political phrase, that we must tread with caution, and discuss the advantages to be obtained side by side with the risks to be incurred. It may be with certainty predicted that any advance founded on a sound scientific basis will stand the test of time, though its adoption may be gradual; but pioneers are liable to be led into indiscretion through their enthusiasm, and the small forces at their disposal are often scattered or exterminated by the prejudices of the aborigines. Many advances are made which eventually end in disaster, whilst others lead to retreat, only that, with the reinforcement of greater experience, more definite advantages may be obtained. I think you will understand from these preliminary remarks that the drift of my address will be towards what may be termed the "foreign policy" of the reproductive organs.

The wide influence which is exerted by the reproductive organs on the stature and physical and mental developments of the male child has been known for centuries, and the withdrawal of this influence has been made use of for various purposes, more especially among Eastern nations, where the operation of castration is performed in order to obtain suitable attendants to guard the harems.

When these organs are removed in the child the stature is dwarfed, the cellular tissue accumulates fat, the breasts become full, the voice at puberty fails to break and retains the feminine pitch, and the beard remains undeveloped. I have chanced, in the course of a long clinical experience, to meet with two or three of such individuals, in whom by accident, disease, or operation, both organs having been destroyed in infancy, the results were such as I have described. The operation is universally employed on domestic animals required for food—oxen, sheep and pigs, in order that they may be less trouble to pen and more easy to fatten for the market. In horses it is commonly practised to lessen their courage, and render them more tractable and more easily managed. The feminine type of the gelding is familiar to all.

The effects of castration on the adult are quite different; for the physical contour has been acquired, and will not recede. The beard will not fall off, nor can the frame or voice revert to a feminine type. Although in some cases there may be a tendency to melancholia developed, the mental development remains high, and the courage appears but little, if at all, affected. Eunuchs in former days have been leaders of armies, and have held high official positions in their states. I can speak with some personal knowledge of horses that have been left for some years before being castrated; they gain a grander build, and, were it not for the expense of keeping them for this delayed operation, the advantages to an owner not afraid of "mettle" would be very great.

To what, then, are we to attribute this marvellous influence of the male reproductive organs upon the developing child? Is it due to some nervous influence of a reflex kind dependent on the primary exciting presence of such organs, or are we to regard these organs, even in their earliest development, as capable of supplying some internal secretion having the power of influencing the metabolism of almost every other organ? Certain it is that, to those who study them closely, male and female infants present differences in manner and character as well as form easily to be distinguished; and though these differences become greatly developed and exaggerated at the age of puberty, they are to be traced from the earliest infancy. Formerly, when the nervous system was little understood, and was regarded with a kind of superstitious reverence, everything difficult of explanation was referred to it. Even now, in spite of the great advances made in the differentiation of nervous diseases and in the localisation of cerebral centres, a certain mystification hangs about much that is written on the subject. Some years ago, soon after Charcot described the joint disease of the ataxic, it became the fashion to attribute all joint affections to the influence of the nervous system. Rheumatic fever and gonorrhœal rheumatism were thus explained. The discovery of the gonococcus of Neisser delivered one of these diseases from the sphinx of the nervous system, and I am convinced that it will not be long before the microbe

of rheumatic fever will be as demonstrable as that of tubercle or of anthrax.

The humoral view or internal secretion theory of the effect of these organs also presents difficulties, but it has gained a great impulse from the discovery of the uses of the thyroid gland, and the marvellous influence exerted in cases of myxœdema by the administration of this gland or its extract taken from the lower animals. Some will remember with what contempt the communication of the aged physiologist, Brown-Séquard, was received, when he published the account of the effect on himself of the testicular extract he had prepared. It was regarded as the drivelling outcome of a degenerate cerebrum; but, not only analogy, but further experience, seems to show that the testes and the kidneys (which formerly were regarded merely as excretory organs) exert an influence apart from their excretory functions, which by many is believed to be due to their so-called internal secretion. There is yet an intermediate view which might be held, that these organs do not act on the development of the various organs—either immediately through their secretion, or by directly transmitted nervous influence—but by the effect of the internal secretion upon the central nervous system. The marvellous toxic effect of the drum-stick bacillus of tetanus upon the nervous system might be quoted in illustration of the effect on the nervous system of an agency introduced from without, whilst the normal internal secretion of an organ might be supposed to exert an altogether milder and beneficial stimulating influence on the general economy through its action on the central nervous system. If we look into an ancient pharmacopœia we see that physicians in olden times were in the habit of administering the organs of the lower animals for the cure of diseases—brains, testes, pancreas, kidneys and livers were recommended for various ailments. Perhaps these blind empirics were not always wrong. I remember, some fifteen or sixteen years ago, when pancreatic juice was being introduced, a physician, given to strong expressions, stigmatised its use as the giving of "advertising gallipots of pancreatic filth"; but the peptonising of foods outside the body is now commonly practised for invalids, and the re-introduction of the extracts of various organs constitutes the fashionable pharmacy of the day.

The influence of the female reproductive organs on the growing infant we have little opportunity of studying in an experimental form, since the unsexed female has not proved herself of service to the state; but it is generally believed that a masculine development, narrowed pelvis, and tendency to the production of facial hair are associated with a weakened influence of these organs. The crowing hen of the poultry-yard is known not to lay eggs. Among horses, mares are occasionally noticed, built on the stallion type, with high crests, thick necks, bushy manes, etc. Such mares often have tushes or canine teeth in the lower jaw, which are usually only found in male horses, and these mares will seldom bear colts. A few years ago a friend, who had a fine brougham mare from which he wished to breed, sent her to be covered by various stallions, without success. He told me of his difficulty, and asked me to look at the mare. I opened her mouth and showed him that she had two fully-developed tushes or canine teeth, which indicated her masculine tendency and weakened capacity for reproduction. On the other hand, early abnormal stimulation of the ovaries will bring about precocious puberty. In the Clinical Society's "Transactions" of 1884, I published a case of precocious puberty in a child of seven years, associated with a sarcoma of the right ovary. This child menstruated at intervals, had firm breasts as large as oranges, a well-developed mons Veneris, and pubic hair an inch in length, so that she presented the appearance of a dwarfed woman. Removal of the tumour led to recession of the breasts and to a cessation of menstruation, but the pubic hair remained.

Having glanced at the influence of the reproductive organs on the growing child, we must consider for a moment their relation to adults, whose masculinity or effeminacy is fully established. That they are not essential to the life of either man or woman has been proved so fully, that it is scarcely necessary to allude again to the effects of their removal. It would rather seem that, having by their influence brought an individual to a certain pitch of development, their interest to him or to her becomes more detached, and less essential to his or her well-being. In other words, they now belong not to the individual, but to the next generation. They more often bring the individual into notoriety than into renown. Courting often ends in the law courts, and generating into degeneracy. The individual is in the position of a trustee for the next generation, and very badly does he commonly carry out his trust. Were it not for the pleasure of transmitting the dividends, by what a large percentage would the trust be repudiated! But a certain pride is taken in the power of the

individual over repetition, and the simple mathematics of multiplication and addition have a fascination for many. This pride in the power of procreation plumes the peacock's tail. Cast a reflection on a man's masculinity, and you make the most vindictive of enemies; and remember that Sarah of the Bible scoffed not only at her husband, but at her God.

If we now compare the relative procreative periods of the human male and female, that of the latter may be roughly stated as from twenty-five to thirty years—say from the age of eighteen to forty-five—though, of course, cases occasionally occur beyond the extremes of either limit mentioned, and in many the period is much shorter. In men the limit seems often only terminated with the end of life. I know a family where there was an interval of exactly fifty years between the age of the eldest son and that of the youngest half-brother. Only a few days since, an old gentleman on the verge of eighty was in my consulting room boasting of his prowess, and complaining of the comparative coolness of his much younger wife.

From these facts it follows that the value of the reproductive organs in the female declines rapidly at the age of forty, and from a procreative standpoint become useless a few years later, whereas the corresponding organs in the male retain their functions to an indefinite period in the life of the individual.

How should these facts affect our practice in regard to operations on these organs? The idea of maternity, apart from any sensual thought, is very strongly impressed on the feminine mind — much more strongly than paternity in the mind of man; and it is our duty, within the limits of the patient's safety, to respect this feeling. "Sometimes to her sorrow," says a recent author, "a woman's work lies beyond her home." Here, then, the question of age might largely affect our practice. Supposing one ovary extensively diseased in a girl or young woman, say from fifteen to twenty-five years of age, and the other sound, no one would, I presume, in the present day think of removing both ovaries unless the disease were of a malignant character. Even if the second ovary showed some early evidence of simple degeneration, but yet, in the main, was sound and capable of discharging its functions (it may be only for a time), I should hesitate at this age, seeing the comparative safety with which such operations can now be performed, to cut off the patient absolutely from the next generation. Such practice might be greatly modified as the patient approached the age of forty or thereabouts, as the ovaries in their reproductive value have greatly declined, and the security of the health of the individual begins to outweigh her weakened chances of maternity. Some eighteen months ago I put forward this plea in some letters to the *Lancet* "On the question of the second ovary in ovariotomy," which brought forward some rather conflicting opinions from other operators. The conservative surgery of the ovaries, which seemed to fall rather under a cloud with the decline and death of Sir Spencer Wells, is, I believe, again gaining ground. As showing the value of one ovary, I may mention that surgeon's statistics:—In 223 women who survived unilateral ovariotomy, and were under forty years of age, 120 gave birth to 230 children, or nearly two children to each woman.

Quite recently (January 29th, 1898) Professor Howard Kelly, of the Johns Hopkins Hospital, Baltimore, published in the *British Medical Journal* a paper on the "Conservation of the Ovary in Hysterectomy," and he related therein twenty cases of operation on the uterus in which one or both ovaries were left. This is just the reverse operation to Battey's operation, in which the ovaries are sacrificed to reduce myofibromata of the uterus. Dr. Kelly's conservatism of the ovaries is made to rest, not on any idea of procreation, which, of course, with the uterus removed is impossible, but upon the value of the ovaries on account of their supposed internal secretion in preventing the symptoms usually referred to a hastened menopause.

Now let us consider the operations that have been undertaken of recent years upon the reproductive organs, with a view of influencing structures at a distance.

Battey's operation, or as it has been paradoxically termed, "normal ovariotomy," or oöphorectomy, was originally proposed for the cure of nervous affections which the ovaries were presumed to induce, or by some reflex influence to maintain. The normal ovaries were removed in order to cure these neuroses. The results have been altogether disappointing, and the operation has, I hope, for these cases been generally condemned and abandoned. Professor Hegar extended the operation for the relief of uterine fibro-myomata with the object of hastening the menopause and causing atrophy of the tumours. For these conditions it has been largely practised, and with beneficial results, though atrophy does not always follow; and since the clamp in hysterectomy has been generally abandoned the removal of the diseased

uterus is being practised with greater safety, so that removal of the whole disease may not improbably be more generally adopted in the future, and the ovaries, one or both, may possibly be left, as Professor Kelly suggests in the paper already alluded to. The latest development of Battey's operation is, however, only two years old. In May, 1896, before the Edinburgh Medico-Chirurgical Society, Dr. Beatson,* of Glasgow, proposed the removal of the ovaries with a view of checking the advance, or of curing cases of cancer too far advanced for further local operation—"inoperable cases," as he termed them. He argued that the epithelial cell-proliferation of lactation up to a certain point closely resembled cancer formation, but whereas in lactation the cells vacuolate and break down to form milk, in cancer they remain, infiltrate the surrounding structures, and spread to the lymphatics. He found in Australia there was a practice of spaying cows after calving to keep up the supply of milk, whereas in this country the influence of the ovary is got rid of by re-impregnation. He then conceived the possibility that if the ovarian influence were removed the cells of cancer might undergo vacuolation and fatty degeneration, as the secreting cells do in milk formation. He also administered thyroid extract to assist in the process.

In one case the tumour of the breast underwent atrophy after the removal of the ovaries, and in another improvement took place. Since then Mr. Stanley Boyd† has published five cases, in two of which atrophy of the growth followed for a time. In neither of these women had menstruation ceased. In others no effect was produced where menstruation had previously ceased. In two cases where menstruation had ceased naturally during the progress of cancer, improvement had been noted, so that the weakening of the ovarian influence and the resulting menopause appear to bring about the improvement. Mr. Cheyne‡ in April of this year published two cases in which Beatson's suggestion was carried out for advanced cancer of the breast and glands. In the first, a woman of thirty-four, improvement took place for six months, then the growth again rapidly increased. In the second case, a woman aged thirty-three, with cancer of both breasts, no improvement followed oöphorectomy.

The latest reports are to the effect that in no case (not even in Beatson's first case) has the improvement ended in a complete cure, though in many, temporary wasting of the growth has been noticed to follow oöphorectomy. Extirpation of the ovaries has also been tried for the alleviation or cure of cancer of the uterus, but no benefit has accrued from such operations.

To return now to the male reproductive organs, I would remind you that the male urethra is complicated by a double function. It is common to both the urinary and generative functions, and the one is apt to interfere with the other. Stricture would be very uncommon were it not that the generative function exposes the urethra to contamination, which the urinary would never do. Then there is the prostate gland, which serves as a sphincter to the bladder, and at the same time is a most essential part of the generative function. Over this gland the testes exert a powerful developmental and permanent influence. If the testes be removed in infancy the gland fails to develop, and at any period of life removal of the testes leads to atrophy of the prostate gland. Professor J. W. White, of Philadelphia, in 1893 first proposed to make use of this physiological fact in cases of prostate hypertrophy, and Ramm of Christiania was the first to adopt the suggestion, his first case being performed on April 3rd, 1893. The reproductive organs of the male have an active procreative life of, it may be, fifty or sixty odd years, being nearly double that of the procreative life of the corresponding organs in the female. Did the function cease at the same period as in the female we should scarcely know what hypertrophied prostate meant, for it is comparatively rare under the age of fifty. The activity of the testes is in some way responsible for the hypertrophy of the prostate, for removal of these organs almost invariably brings about shrinking of the enlargement. Most remarkable results have been obtained by this operation in many cases, but it must be remembered that the patients are already near their natural term of life, and their kidneys may be in an advanced stage of septic dilatation before consent is obtained for operation, so that considerable risks must be incurred. The idea of mutilation, and the contempt with which most men regard the eunuch, stand more in the way than anything else to the general adoption of this operation for very old men.

It must, however, be conceded that the urinary function at this period of life is much more essential to the individual than the generative, and the constant passage of catheters in prolonging life gradually reduces the individual to an almost intolerable form of existence.

* Published in the *British Medical Journal*, July 11th, 1896.

† *British Medical Journal*, Oct. 9th, 1897.

‡ *Lancet*, April 30th, 1898, p. 1191.

As regards the results of the operation, White published in 1895* 111 cases. Rapid atrophy occurred in 87·2 per cent.; amelioration of symptoms in 83 per cent.; return to almost normal urinary life in 46·4 per cent., deaths 18 per cent. More recently McEwen† collected 52 cases; 82 per cent. were relieved, 7 per cent. showed no improvement, and 11 per cent. died.

If the cases of uræmia, following quickly upon the operation when performed too late, are taken into consideration, I think the apparent mortality would be higher. In the last two cases I have operated on I removed one testis before the other, in order to avoid the possible shock of suddenly removing the influence of both testes together. One of these cases completely recovered the control of his bladder, and it was interesting to note the shrinking of the side of the prostate on the side corresponding to the first testis removed, before I proceeded to remove the second. The second case died of uræmia before I removed the second organ.

An alternate suggestion has been made by Mr. Reginald Harrison to tie or excise part of the vas deferens in order to bring about atrophy of the prostate. It must be admitted that the results obtained in this way are far less remarkable, and in some cases it seems to bring about no atrophy of the testis. An old man of seventy-five, in whom I removed an inch and a half of each vas, came up a year after with no atrophy of the testes, and told us, to the surprise of all who heard him, that he was capable of connection once a week, and more often if he wished. This case, in which I dissected each vas clear of other structures, seems to suggest that ligature of the neighbouring artery of the testes with the vas is the cause of the atrophy, and not the division of the vas itself.

To sum up my argument:—

1. The male and female reproductive organs, originally allied in development, exert a remarkable influence on the development of the individual apart from their procreative function.

2. Maturity having been obtained, the procreative function outweighs in importance the nutritive influence exerted on the various tissues of the body through these organs.

3. From a national as well as domestic standpoint the procreative function of woman is her richest dowry, so that in a young woman, whenever possible, it should be preserved to her by conservation of an active ovary.

4. With the approach of middle life the ovaries decrease in value, and may be more freely sacrificed to prolong the life of the individual.

5. Both ovaries and testes exert throughout life a certain influence on associated organs, and perhaps to a less extent on all the organs of the body.

6. This influence, formerly attributed to reflex nerve action, by many is now thought to be due to an internal secretion from these organs.

7. The removal of normal ovaries (Battey's operation) has failed as a cure for neurosis, and cannot be too strongly condemned for such cases, especially in young subjects.

8. The same operation for fibro-myomata of the uterus has often proved of great service in reducing the tumours by hastening the menopause.

9. Kelly, impressed by the importance of the internal secretion theory, has lately recommended conservation of one or both ovaries when the uterus is removed, which is a reaction into somersault on Battey's operation.

10. Battey's operation has lately been suggested by Beatson for the cure of inoperable cases of cancer. Remarkable shrinking of the tumours of breast and glands has been noticed to follow the operation in women who had not reached the menopause, but complete cure seems never to have been obtained.

11. The prostate has both a generative and a urinary function. Late in life the urinary is increasingly more essential than the generative.

12. The testes throughout life exert a remarkable influence on the development of the prostate, so that their removal at any period leads to atrophy of the organ.

13. To make use of this influence for the cure of enlarged prostate was suggested by J. W. White in 1893, and has been performed by many surgeons since. In a large proportion of cases a great amelioration of symptoms follows.

* *Annals of Surgery*, July, 1895.

† *British Medical Journal*, vol. ii., 1896.

Royal College of Surgeons of England.

BRADSHAW LECTURE.

Notice is hereby given that the Bradshaw Lecture will be delivered in the Theatre of the College by T. Pickering Pick, Esq., F.R.C.S., on Wednesday, the 7th of December next, at five o'clock p.m. precisely. The subject of the lecture will be "The Union of Wounds." Fellows and Members of the College are invited to attend. Students and others, who are not Fellows or Members of the College, will be admitted on presentation of their private visiting card.

EDWARD TRIMMER,
Secretary.

21st November, 1898.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

Cases under Dr. Pye-Smith.

Mary 27. Mitral stenosis. Left pleuritic effusion. Paracentesis.
29. ? Pulsating abdominal tumour. Dilated stomach.
30. Rheumatism; first attack. Pericarditis.
31. Facial neuralgia.
35. Œdema of legs. ? Thrombosis. Anæmia.

Philip 21. Mitral regurgitation. Dilated right heart. Ascites.
23, 40. Aortic regurgitation and stenosis.
24. Phthisis.
25. Enterica.
26. Cerebral hæmorrhage.
30. Diabetes mellitus.
34. ? Enterica.
35. Mitral regurgitation and stenosis. Acute cardiac dilatation. Pericarditis.
36. Acute regurgitation.

Cases under Dr. Taylor.

Mary 39. Large liver. ? Gall stones. ? Carcinoma.
41. Pericarditis.
45. Mitral stenosis.
46. Cirrhosis of liver. Ascites.
47. Bronchitis.
48. Bronchitis.

Stephen 3. Stricture of œsophagus.
4. Acute rheumatism; second attack. Mitral regurgitation.
5. Mitral stenosis.
6. Phthisis.
7. Enterica.
8. Phthisis. Tubercular kidney. ? Tubercular bladder.
10. Chorea.
13. Recent and old cerebral hæmorrhage.
16. Mitral regurgitation.
17. Mitral stenosis and regurgitation. Secondary tricuspid regurgitation.
18. Enterica. Relapse.
20. Mitral stenosis.

Cases under Dr. Pitt.

Mary 2. Acute rheumatism. Pericarditis.
3. Mitral stenosis and incompetence. Attacks of hemianæsthesia.
4. Acute rheumatism. Mitral stenosis.
5, 8. Acute rheumatism.
6. Mitral stenosis and incompetence. Right pleuritic effusion.

Mary 7. Phthisis.
9. Hæmatemesis.
10. Right pleuritic effusion.
11. Traumatic hysteria.
12. Mitral stenosis and incompetence. Tricuspid regurgitation.

Stephen 22. Cerebellar tumour.
23. Chronic peritonitis.
24. Enterica. Thrombosis of veins.
27, 33. Acute rheumatism.
29. Gangrenous appendix. Operation.
31. Chronic interstitial nephritis.
32. Enterica.
35. Aortic incompetence.
37. Erythema multiforme.
38. Œdema.
39. Aortic and mitral incompetence. ? Aneurysm.

Cases under Dr. Washbourn.

Philip 7. Locomotor ataxy.
12. ? Empyema. ? Subdiaphragmatic abscess.
9, 13. Tubal nephritis.
14. Phthisis.
17. Mitral disease. Adherent pericardium. Tricuspid regurgitation.
18. Phthisis.
20. ? Abdominal aneurysm.

Mary 13. Diabetes mellitus.
16. Mitral disease.
17, 18. Granular kidney. Chronic anæmia.
19. Pernicious anæmia.
20. Multiple arthritis. ? Tubercular.
22. Enterica. Pneumonia.

"Clinical."

John 1. Splenic anæmia.
2. Appendicitis.
3. Typhoid.
4. HCl. poisoning. Stricture of œsophagus.
5. Pneumonia. Infective endocarditis.
6. Pneumonia.
7. Typhoid.
8. Gall stones. Cholecystotomy.
9. Fibroid lung. Bronchiectasis.
10. Appendicitis.
11. Typhoid.
13. Abdominal abscess.
14. Paroxysmal hæmoglobinuria.
16. Double pneumonia.

Miriam 19. Gastric ulcer and hæmatemesis.
20. Carcinoma ventriculi.
21. Pneumonia.
23. Empyema and pericarditis.
26. Appendicitis.
27. Typhoid.

Miriam 29. Pelvic peritonitis.
30. Splenic anæmia.
31. Gastric ulcer and hæmatemesis.
32. Pericarditis.
33. Diphtheria. Tracheotomy.
34. Diphtheria. Tracheotomy.
35. Scarlatinal nephritis.
36. Congenital cerebral lesion.

Isolated Case of Typhus.

F. K., æt. 19, was admitted into John ward under Dr. Pye-Smith on Oct. 16th, 1898, for fever 102°, pains in the legs and general weakness.

The father and mother are both alive, and together with their four children, including patient, occupy the same dwelling. The other members of family are in good health, and the medical officer states that there is no illness of a like nature in the neighbourhood, nor has there been any in the localities to which patient has been in the course of his business, so far as one can ascertain.

Patient, apart from having measles and scarlatina as a child, has always enjoyed good health. He says that he has been having a discharge from the penis for the last seven weeks, for which he has been taking no medicine until a week ago when he got something from a chemist. He has not felt very well during this time, but has had no increased frequency of micturition, nor any scalding whilst passing his water.

He dates the present illness from Monday, October 10th. He was at his work all day, but on his return home he felt unwell and went to bed early. He was able to do his work on Tuesday, but on Wednesday he was obliged to keep his bed, he had severe pains in his thighs and calves of his legs, slight headache, loss of appetite, and inability to take solid food. He became very feverish with attacks of shivering at night, but no vomiting.

Thursday, the fourth day of fever, a rash broke out on him, which he first noticed on the thighs, but he does not know if it began there, because after noticing it on the thighs he found it also on body and face. He was brought to the hospital on Sunday, October 16th.

Temperature, 102°; pulse, 128; respiration, 32.

When admitted he was dull, stupid, and somewhat deaf. *The tongue* was red at the tip, the edges and in the middle line, furred on each side. The tonsils were not enlarged, but the glands under the angle of the jaw on both sides were big, and the neck looked full. The eyes were suffused, the face flushed, with a number of fading papules on both cheeks.

The rash was distributed all over the trunk, limbs, and neck, and was most abundant over the front and outer portion of the upper part of thighs. It consisted of papules very slightly raised above the surface and fading on pressure; some of these papules on the thighs appeared to have run together to form patches about the size of a threepenny bit. Throughout the body it appeared to be a fading, somewhat dusky rash, the brightest papules being on the back and shoulders.

In the surgery a few rose-coloured spots resembling those of enteric fever, are said to have been seen, but these had disappeared when patient was examined in the wards.

On examining the abdomen there was no fulness, but he complained of pain and tenderness about the umbilicus and beneath the costal margins.

The spleen could not be felt, nor was there any increase in its area of dulness.

The liver was felt in the epigastric region, and towards right costal margin.

Genito-Urinary System.—A thick, yellowish-white discharge was coming from the penis, but on pulling back the prepuce this was found to come from the back of the glans and underneath the prepuce, the urethra being quite free. The glans was inflamed and superficially ulcerated. There was no induration to be felt anywhere, the glands in the groin were a little enlarged and quite painless. No orchitis or pain on defæcation.

Urine highly coloured; sp. gr. 1032; acid reaction and clear. No albumen, sugar or blood present. Not a trace of Copaiva or Pot. Iod., which were thought of as possible cause of rash.

Circulatory and Respiratory Systems quite normal.

Nervous System.—Patient was in a dull, heavy state and somewhat deaf. It was extremely hard to get any definite idea of the course of illness out of him, as he continually muddled himself and said different things on different occasions. He complains of pain in the thighs and calves of legs, which are extremely tender to the touch. Knee jerks absent. No anæsthesia.

Progress of Fever.—Oct. 17. The rash had faded considerably. The face was free of papules, and both cheeks were now very flushed only. The papules on thigh were less numerous, and some had left behind yellow stains not fading on pressure; over the rest of body it remained much the same, though more faded. The abdomen was full, with tenderness on palpation, but spleen could not be felt. Patient remained in a drowsy typhoid state, with slight headache. Tongue very dry and brown in the middle, red at the tip and edges. Temperature, which rose to 104·2° in the night, fell to 102° at 10 a.m., but went up again to 104·6° at night.

Pulse and respirations were proportionally increased in rapidity.

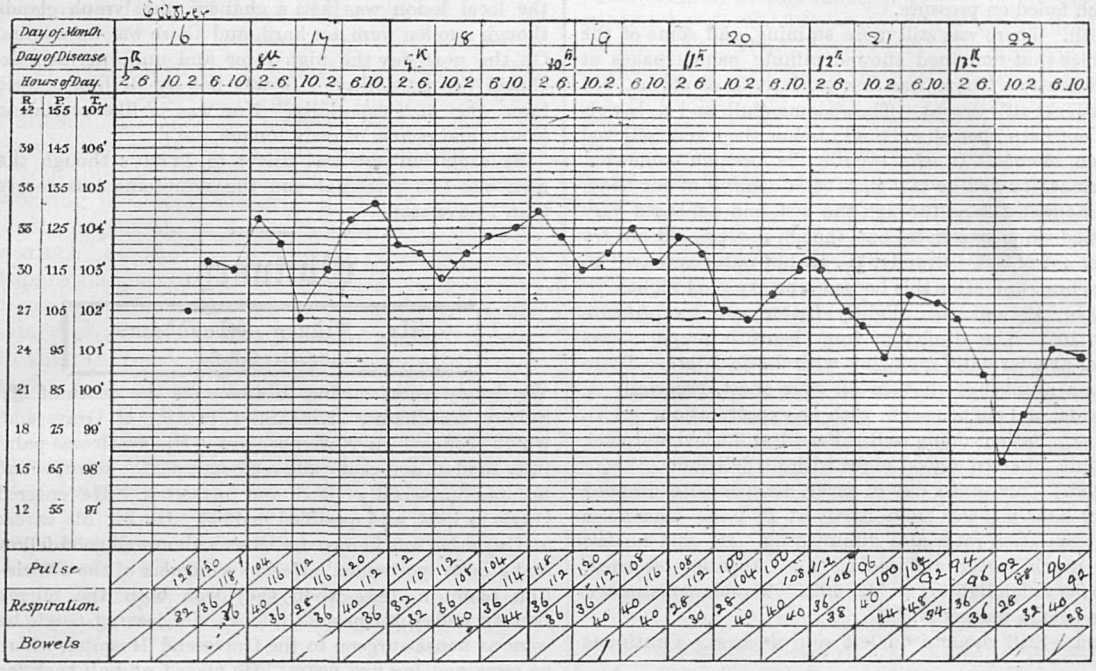
The serum reaction of Grüber and Grünbaum for typhoid was not present.

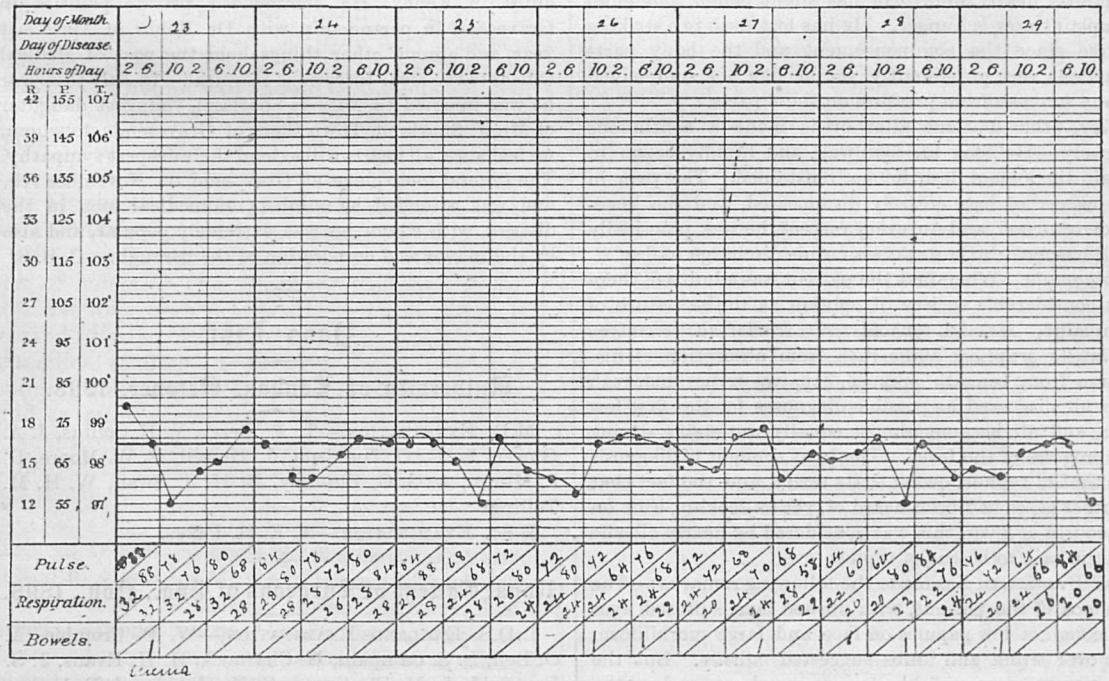
18th. There was staining over the forearms and abdomen as well as on the thighs, and slight desquamation on the right side of neck.

The skin had more of a mottled appearance, the rash seeming to consist of three portions.

(*a*). Slightly raised, dull-red papules, fading on pressure, the same as on admission.

(*b*). Yellow spots, the result of staining not fading on pressure and looking very much like freckles.





TEMPERATURE CHART OF CASE OF TYPHUS FEVER (p. 530)

(*c*). A kind of sub-cuticular rash seen at the background which faded on pressure.

19th. There was still more staining, and some of the papules that remained showed minute hæmorrhages at their centre. There was less tenderness of calves, but knee-jerks still absent. The abdomen full, and as bowels had not been opened since admission they were relieved by an enema. In the evening he became somewhat delirious, fancied he saw glass balls coming at his head, said he was sinking through the bed, and appeared very startled when spoken to, but, though restless, did not try to get out of bed. Brandy, ʒi., in hot water appeared to quiet him, and after this he had a pretty good night.

20th. Patient was slightly better and temperature only 102° The discharge from beneath prepuce was better also for daily syringing with Lotio Nigra. There were a number of rhonchi all over chest, especially on left side, and slight cough, with no expectoration.

21st. Patient doing well. Face less flushed and neck less full. Passed a good night with no delirium.

22nd. Thirteenth day of fever, temperature dropped by 10 a.m. to 98·2° from 102·4° at 10 p.m. The pulse and respiration rates also diminishing. He said he felt very much better and looked so. Appetite returned.

Urine much lighter, sp. gr. 1022. Bowels constipated since enema was given.

23rd. Still rhonchi on left side of chest. Continues well.

24th. All that is left now of the rash is a dirty coloured mottling of the skin. Eyes no longer suffused. Balanitis nearly well. He has slight cough, but chief complaint now is hunger. He has lost flesh to a striking degree since the commencement and the bony parts stand out very prominently, yet he has not complained of any soreness from pressure on these parts.

Nov. 5th. Patient after crisis made a continuous recovery. He took his food well, and rapidly began to regain the loss of flesh he had sustained. The pain in the calves of legs entirely disappeared, and the knee-jerks returned, and in every respect he was practically well, but for a little weakness on his discharge to-day.

Diagnosis.—When first the patient was admitted, there was considerable variety of opinion as to the nature of complaint. *Measles, typhoid fever, scarlatina, secondary syphilitic eruption, septic rash* from absorption of discharge from beneath prepuce, capaiva or pot. iod. rash were all discussed as possible diagnoses for the first few days, and all became almost equally untenable during the progress of the fever. The least thought of diagnosis was that of typhus, owing to its rarity, and the fact that no other cases had been heard of, yet on looking back on the course of fever, this was considered by nearly all who saw the case to be one of typhus fever.

Dr. Pye-Smith has made the following remarks:—The first look of the patient, with flushed face, suffused eyes and cough, a few papules on face and large morbiliform rash over trunk and limbs suggested *measles*. But the face was too free, and the legs as much covered as the upper parts. The chronology fitted well, but the fever lasted too long. I thought at first it was syphilitic, but the local lesion was not a chancre, the lymph glands though swollen were not hard, and there was no angina. On the next day the high fever and uniform rash excluded the possibility. It was not at all like enteric fever, the rash especially. Nor was it like scarlatina (colour and course of rash, tongue, etc.).

By exclusion one was driven to Typhus though the rash was less petechial and the symptoms less severe than I have seen.

Obituary.

Mr. Sidney Woodhams, M.R.C.S., L.R.C.P.

We deeply regret having to announce the death of Mr. Sidney Woodhams, M.R.C.S., L.R.C.P., of Gravesend, which occurred on November 3rd. His death was painfully sudden, and cast quite a gloom over the town, where he was universally liked and respected. He entered Guy's in 1884, and qualified in 1888. During his career at Guy's he was known to all as a thorough good fellow and a keen sportsman. He was a member of the association team in 1887 when they won both the Surrey County and Inter-hospital Cups. On leaving Guy's he went as house-surgeon to the Gravesend Hospital, where he remained for five years. He played at half-back for the Gravesend Football Club in its old amateur days, when it was looked upon as one of the strongest amateur clubs in Kent. He commenced private practice in Gravesend in partnership with Dr. Robbs in April last year, and among other things held the post of Medical Officer to the local Infectious Hospital. In July this year he was married to Miss J. Sharland, youngest daughter of Mr. J. Sharland, Town Clerk of Gravesend; to whom, we feel sure, all hearts will extend their deepest sympathy. The funeral took place at Gravesend on November 7th, and was attended by numbers of medical men in the district, with whom he was extremely popular, and also by the mayor and corporation of the borough. C. B. S.

Pass List.

University of London, October, 1898.

M.B. Examination.—T. P. Berry, V. E. Collins, J. A. Glover, L. E. C. Handson, J. Howell, P. W. Moore, D. J. Munro, A. G. G. Plumley, R. H. J. Swan, W. H. M. Telling.

B.Sc. Examination.—A. E. H. Pakes.

Royal College of Surgeons of Eng., Nov., 1898.

L.D.S. England Examination.—W. P. Crombie, A. O. Bell, P. S. Campkin, H. Charnock, H. H. Evans, J. S. Farnfield, L. M. Fleetwood, C. H. Huckle, C. F. Jessop, E. N. Mason, W. H. Phillips.

Passim.

As announced in the last number of the Gazette, Dorcas and all its inhabitants have removed to Queen Victoria Ward, there to commence work under all the conditions most favourable to a rigid aseptic régime. To those working in Queen Victoria, however, the virtue most apparent is the uniform and cheerful warmth of the ward; with new hot-water apparatus and improved fireplaces it is a very haven of refuge for the poor weather-beaten Charities in this most inclement season. And, on the other side of the road, the hoardings now having been pulled down so that all who pass may see, rises that stately edifice, the establishment for the Temporary Accommodation for Nurses, rivalled only in architectural splendour by its sister building the Physiological Block. The roof of the new building is one of the hospital architect's happiest efforts, a good bold design with no petty tricks of style. It will indeed be a gay sight next summer, when the sitting-out-on-the-roof season has commenced.

The results of the final M.B. examination at the London University this time are most creditable. In the pass examination out of thirteen men who went up from here no fewer than ten passed. It is to be hoped that the same good fortune will attend those who are still further seeking for glory in the shape of honours.

St. George's Hospital men have done a most admirable piece of work in setting the example to all other London hospitals by publishing a book of songs. The Scottish Students' Song-book has long been practically the only book of the kind of any note, and there is no reason why the medical students in London should not have a similar collection. Detailed criticism will be found in another column; here we have only to congratulate St. George's on being first in the field with a most successful undertaking of great merit.

The game against the Old Merchant Taylors resulted in a win for Guy's by one goal and one try to one goal. This result is satisfactory, and we certainly had the best of the game, but our winning points were scored through a somewhat doubtful try, which was the outcome of a splendid piece of play by Rae.

G. Evans, at full-back, played a fairly strong game; he should take more time when fielding a ball. At three-quarters our combination has improved, and O'Brien is getting to recognise his right position. We should like to see a strong burst-through occasionally by a centre. Walker and Jackson played an excellent game at half; it is the best display we have ever seen Walker give, and we cannot help thinking that with a dry ball and ground, the margin in our favour would have been greater. The forwards heeled out and "screwed" very well on several occasions, but there is still room for improvement in condition and combination. More than one of our forwards showed an inclination to play off-side, and a certain try was lost owing to an infringement of the off-side rule. If a forward finds himself off-side, his remedy is to get on-side at once. Further, off-side play tends to spoil a game, as it is annoying to our opponents as well as to ourselves. Mullins and Trail worked hard, Smith and Lawry did good work in the open, and Thomas was useful on the line-out.

We had to go down to Chatham on Wednesday last without Mullins and Rae. In addition, O'Brien missed the train, and his place was taken by T. Morgan, who intended acting as touch judge. The result was a win for our opponents by one goal and two tries to two tries. To criticise shortly, we have seen Evans tackle better, but his kicking was good. The three-quarters should have scored oftener, but they showed no combination; their tackling was strong. Bagshawe has the making of a centre three-quarter. M. C. Wetherell again injured his thigh early in the game, and both he and Jackson were off-colour. The forwards played fairly during the first twenty-five minutes, but after half-time went to pieces. Trail was the best, and Trubshaw and Smith were always prominent. The forwards must learn to part with the ball before they are tackled. The score in our favour would have been increased if the forwards had passed a little earlier.

The original side to represent Guy's and St. Thomas's against Blackheath to-day has undergone several changes. Greg's absence will be missed, and the combination will be interfered with at half-back through the younger Wetherell's injury. However, we expect our forwards to show up well.

By common consent the Christmas Number of *The Guyoscope* has broken the record in all

ways. It is the largest number which has ever been produced, and in many ways is the wittiest. The humour is of a more general character and not so cryptic as usual, and will therefore appeal to outside men with greater force. *Apropos*, we do not think *The Guyoscope* is appreciated by old Guy's men and the outside public in a proper spirit. One finds that most medical men have heard of it or perhaps seen the last number, but they never subscribe, they only borrow somebody else's copy; some of these copies must go a very long round at times. If a few more of these vicarious readers would become regular subscribers the hardworking staff of *The Guyoscope* would heartily respond to the appreciation of their work.

FOR the last fortnight we have been persecuted continually by day and night by the more timorous of mankind for our remarks about the vaccination debate. It has been liberally pointed out what harm we are doing by publishing such ill-considered remarks in such an influential journal; how that the Anti-Vaccinators will get hold of our statements and quote them as gospel, and so forth. We are deeply touched; we did not know our little candle threw its beams so far upon this naughty world, and the writer of the article has added an inch to his stature and more breadth to his smile in consequence. Of course anybody but a rabid Vaccinationist would have seen that both article and paragraph were "writ sarcastic."

MR. A. W. ORMOND, in a valuable letter which we print to-day, has made some very sensible remarks anent a class for the Final Fellowship Examination. As he justly points out, note book and pencil classes are no good for this eminently practical examination, but rather extensive personal experience of cases, and reasonable deductions therefrom. What these men really want is to be able to go round with the Registrar alone at times, without the horrid crowd which usually accompanies that popular functionary, and discuss the cases at more length and with more detail than is possible on the daily round. This, combined with more advanced surgical pathology classes, would practically meet the case.

WE would remind all London men of the existence of the Guy's Hospital London University Dining Club, which is open to all Guy's men who are going up for the London examinations, and who are graduates. The value of a club like this is possibly not so apparent now as in after years, when men have separated all over the country. Then the opportunity afforded by this club to meet one's old friends is invaluable. The next Dinner will be in January. All communications will be gladly received by the Secretaries, Dr. J. H. Bryant and C. H. Fagge, Esq.

THERE is an old proverb that says, "Happy is the nation that has no history." The Nursing Staff must be in a state approaching that of the Millenium if the proverb speaks aright, for we have received no official nursing news for the last two months. Happily we have sufficient faith in the human nature of these ladies to know that there must be some news of interest, and we should like to point out to those responsible for furnishing us with nursing intelligence that considering the large and valuable part the nurses play at this hospital their interests have been but poorly represented in the GAZETTE of late.

Chapel News.

The Rev. Francis H. Rice, B.A., L.Th., has been appointed Assistant-Chaplain, and is residing at the Collegiate House in St. Thomas's Street. On Advent Sunday Mr. Rice preached the first of his course of sermons on the mornings of the Sundays in Advent.

On the Thursday evenings in Advent at 8.15 there is a short service with an instruction from the Acting-Chaplain.

Particulars of the special Advent services and sermons have been printed and can be obtained from the clergy.

According to annual custom there were collections at all the services on Advent Sunday for St. Andrew's Waterside Church Mission. The offertories amounted to £4 3s. 2d.

CHURCH COUNCIL.—ELECTION OF FOUR NEW MEMBERS.—Meeting of Communicants for this purpose on Wednesday evening, December 7th, at 8.15 in the House Committee Room. Formal notice will be posted in the usual places.

Wanted

A copy of the *British Medical Journal* for November 15th, 1898.—Address: Librarian, Guy's Hospital, S.E.

Abnormalities in the Dissecting Room.

No. 38. Has a high division of common carotid artery. Division takes place about half-an-inch above the upper margin of the hyoid bone; three-quarters of an inch above the division, the external carotid gives off a common trunk dividing into superior thyroid and lingual arteries. The occipital comes off at lower margin of digastric muscle and is very small. The sternomastoid branches of superior thyroid and occipital arteries are wanting, but there is a fair-sized branch from the lingual, and the hypoglossal nerve hooks round this instead of round occipital. The vertebral artery is large, compensating for small occipital, and comes off very low down close to origin of subclavian from aortic arch. Consequently it lies more internal than usual, and the thoracic duct does not cross it but passes down between it and subclavian.

No. 21. Low division of carotid at level of cricoid cart.

No. 32. Vertebral artery comes off from arch of aorta and remains superficial to longus colli up to transverse process of fifth cervical, through foramen of which it passes. *Thoracic duct* lies external to it as in No. 38, and it terminates in the external jugular vein about half-an-inch from junction with subclavian.

No. 40. High division of brachial artery at upper margin of latissimus dorsi. The outer head passes between two heads of median nerve and then deep to outer head and musculo-cutaneous. It gives off anterior circumflex artery. Inner division lies internal to median nerve, the vein lies internal to both divisions. On passing down the inner division crosses the outer and becomes external.

No. 41. Has five renal arteries, three to right kidney and two to left. *On right side* two upper arteries arise from aorta by common trunk with the inferior phrenic at level of first lumbar vertebra. The third artery arises from aorta half-inch below inferior mesenteric, crosses the inferior vena cava and enters kidney at lower end of hilum. *On left side* two arteries arise from aorta independently, upper one on level with common trunk on right side, and lower one about one inch below.

No. 33. The right hepatic artery comes off from the superior mesenteric.

No. 31. Suprascapular artery arises from third part of subclavian under clavicle and passes out between two roots of outer cord of brachial plexus.

No. 24. Occipital runs superficial to trachelo-mastoid muscle.

No. 23. The stylohyoid ligaments are completely ossified on both sides. They articulate above and below with styloid process and lesser cornu of hyoid bone. *In same subject* a large muscular slip of sterno-mastoid passes downwards and backwards to be inserted in posterior border of clavicle about one and a-half inch from outer end.

No. 33. In right forearm a muscular slip passes from tendon of flexor carpi radialis downwards and inwards to be inserted into base of first phalanx of fifth finger with flexor minimi digiti. There is no Palmaris longus.

No. 24. In right upper a muscular slip passes from lower margin of latissimus dorsi to upper and inner margin of tendon of Pectoralis major, superficial to biceps and coraco-brachialis. The omohyoid muscle is continued upwards to blend with the mylohyoid. The anterior belly of digastric gives off a muscular slip to median raphe of tongue.

No. 19. The small occipital nerve passes backwards through posterior triangle, and pierces trapezius muscle, and then passes upwards to distribute. As it lies in posterior triangle it gives a *communicating branch to spinal accessory*.

No. 18. Has an appendix seven inches long.

Case of Nutmeg Poisoning.

W. C., æt. 23, was admitted into John on Nov. 23rd, suffering from the effects of eating four nutmegs. When seen in the surgery (six hours after taking them) he had not been sick, but he complained of great drowsiness and dry mouth, with a burning sensation in his throat and a feeling of weakness and heaviness of the limbs, especially of his lower extremities. His pupils were rather dilated, skin moist, but not cold. Pulse, full and strong, 75, and respiration 20. There was no pain or tenderness of the abdomen. He was immediately given zinc sulphate gr. xxx., which caused him to vomit, but the vomit did not shew any traces of nutmegs. Patient was then taken into the ward and put to bed with hot bottles, and was given caffeine citrate, gr. v., in half-pint of strong coffee. Patient slept soundly for twelve hours after this and the next morning seemed quite himself, except that his limbs still felt weak. On the 25th he was discharged having completely recovered. H. E. C. F.

Notice.

GUY'S HOSPITAL STUDENTS' CLUB.

PAVY GYMNASIUM.

In view of the unsatisfactory arrangements which now exist with regard to the gymnasium lockers, the Students Club committee propose to make certain alterations for the benefit of the members.

All members at present having keys to lockers are requested to return them to the Medical School Office by January 1st, 1899.

Any lockers, the keys of which have not been returned or accounted for, will be opened, and new locks put on.

From January next, Bye-Law No. 7 will read as follows:—Members can rent lockers at 1/6 per annum, on paying a deposit of 5/- at the Medical School Office. The lockers must be emptied by September 30th following, or a fresh rent paid.

(Signed) J. FAWCETT,
Hon. Sec. Students' Club.

Guy's Hospital,
November 30th, 1898.

Guy's Hospital Dental Society.

THE usual monthly meeting of the above Society was held on Tuesday, November 8th, at 5 p.m., the President, Mr. Hopson, in the chair. The minutes of the previous meeting having been read and confirmed, the following casual communications were brought forward:—

Mr. UMNEY showed a lower model with three premolars on either side.

Mr. SWEENEY sent a small denture which had been in the alimentary canal of a female patient for ten days, for which the patient had received no treatment.

Mr. SEARLE showed a tooth which had been replanted, but the root becoming absorbed was ultimately so loose that it was extracted by patient.

Mr. WARTSKI showed several abnormalities of teeth; one being a second upper molar with four roots, which were exostosed; there was also an enamel nodule present. He also showed two curved bone dentures with natural teeth.

The President then called on Mr. Wilkes for his paper on

INLAYS.

MR. PRESIDENT AND GENTLEMEN.—I am afraid that many of you will think that in choosing inlays for the subject of this paper I have been too ambitious, and am trying to teach that which I know very little or nothing about. My defence is, that in going over the subjects, that would be useful and interesting to us all, I found that I knew very little about any of them. Then I considered which subject I should profit by most myself, and what would be most useful to me in after life, when, having left dear old Guy's, I should be trying to earn my living in such a way as to be an honour and credit to my old school and our profession. This was not altogether a selfish motive, as it seemed to me the best way to judge what my audience would like to hear.

Inlays being a practical subject, I will be practical also, and start at the beginning, which I think is by describing the advantages and disadvantages of inlays as compared to other fillings. The chief advantage is, of course, the appearance, which is perfectly natural, and therefore far more beautiful than anything else which is not. The operator should bear this in mind when choosing the colour, and take great pains is securing a good shade.

Porcelain being essentially a bad conductor is for this reason a good material to put over a sensitive pulp, and this is a consideration your patients will appreciate. This bad conductivity of the filling is increased by the fixing of the inlay which is almost always done with cement. Of course, porcelain withstands the action of the acids of the mouth, and is also hard enough to stand any wear from mastication; but the weak point is the fixing, which, as I have said, is almost always done with cement, and this can be reduced to a minimum by having the cement line of the narrowest possible breadth.

As to the difficulty of filling inlays, I fail to see where it exists, and I believe that if only we gave this work one half as much trial as we do gold, all the obstacles would disappear. For example, I am sure most of you, if not all, could fit a tube tooth very accurately on to an irregular surface like a gold plate, which it stands to reason is much more difficult to fit than the symmetrical cavity cut for inlays.

With these few words in praise of inlay work I will get on to the actual operation. The first thing of course is to cut the cavity, and there are a few things to be borne in mind while doing this. The most important point is to get a good edge to the enamel margins, and some operators even polish these; but at the very least a fine cut bur that is very sharp should be used, as a coarse one, especially when it is at all blunt, is apt to chip the enamel. All decay should be removed with an ordinary burr before the cavity is shaped with a special burr, except where an impression is to be taken, as this necessitates freedom from undercuts. The special burr should cut in at a right angle, and without any of that lateral movement so difficult to prevent at starting. Finally, the cavity should be fairly deep, so as to give the inlay a good support, and slightly undercut, so that if inlay is ground into the cavity to give an exact fit it has less tooth substance to cut as it only touches the external edges of the cavity. Never cut a groove for the retention of a filling into a weak wall, or into a wall that has as much strain as it can comfortably bear without breaking, but always select the strongest or one that is well able to stand the extra strain.

In interstitial cavities it is always necessary to get a good separation as it is absolutely essential to success to have perfect access to all parts of the cavity. Inlay cavities are either cut into a circle, a modification of a circle, such as an oval, etc., or else into cavities with straight sides, so as to facilitate as much as possible the fitting of the stopping. In cutting cavities try and combine the minimum of waste of tooth substance with the maximum of perfection of the inlays. When the cervical edge is very much decayed, first build it up with gold before cutting the inlay cavity.

As I will have to include some description of cavities in the directions for making the various inlays I will now pass on to that part of the subject.

The round porcelain inlays made from accurately ground rods and discs which exactly fit cavities cut with a given size burr are far and away the easiest and least troublesome to bring to a successful conclusion, both as regards appearance and durability. You have all probably seen, if you have not used, the apparatus supplied to us by the hospital, known as Dall's Ground Inlay Outfit. This consists of a number of assorted inlays in labelled boxes, matching different sizes of burs, and is used in the following way. First remove all decay with an ordinary burr, and then with one of the special burrs which just includes all the walls, cut a perfectly circular cavity at right angles to the surface of the tooth, of about $\frac{1}{8}$ of an inch in depth and with parallel sides. All that is necessary now to finish the cavity is to make it retentive, and this is done (1) by undercutting it with the burr

supplied for this purpose, and (2) by grooving two opposing walls, taking care not to touch the margins of the cavity. If the cavity is in the centre of the tooth the top and bottom walls are best for the grooves, as they are quite strong unless the cavity is near the cutting edge, when care should be taken of that wall. Generally avoid the side walls for these reasons:—(1) So as not to unnecessarily weaken an already frail wall; (2) some teeth being very convex, the lock grooves cut in the porcelain, and which co-apt with these grooves may be exposed to the contouring, thus spoiling the inlay.

The cavity being now ready, select the porcelain, and in choosing the shade do not make the mistake of matching it to the dry tooth, which is of a lighter colour than when wet. If the exact shade is not procurable, choose a lighter rather than a darker one, as the cement tends to darken the porcelain. The discs, having parallel sides, cannot be ground into the cavity, but must either be laid in or ground out of the mouth, if too large; but the rods, being slightly conical, should be fixed on to a carrier with shellac, and the end having been cut so that the porcelain does not quite reach the bottom of the cavity, the rod is ground into it with the aid of a little pumice. Thus, the inlay cuts its own cavity, and must fit perfectly. Before removing from the tooth mark the porcelain, so that the piece may be cut from the rod, but before doing this cut the locking grooves at top and bottom, as it is much easier now than after the rod has been separated. Wash both cavity and inlay with absolute alcohol, and dry with hot air.

The inlay is now ready for fixing, which is generally done with cement. Mix the cement rather thin so as not to be hurried by the setting, and place a little in all the grooves, then rub a small quantity over the walls of the cavity, but not on the floor, as it will prevent the inlay from going home. Previous to this, the inlay should have been marked to show the top and bottom, as it is very important that the grooves should co-apt and form locking bits of cement. Then, with a slightly rotatory movement, push firmly into place with a piece of orange wood, taking care that the mark is at the top when finished. Keep the pressure on the inlay until the cement has set fairly hard, to prevent any possibility of compressed air displacing the inlay a little. Now run a little white wax, which is better than varnish, over the inlay, and, removing the rubber dam, send the patient away for at least five hours.

At the next sitting the porcelain may safely be cut down without any fear of injury to the cement, which is now thoroughly hard. To do this, first use a corundum wheel and remove the greater part of the surplus; then with a diamond disc, contour up to the exact tooth surface so that a probe will not catch in any protruding surface, but take care not to cut the enamel. Polish with Water of Ayr stone, wood, or moose-hide points in combination with fine pumice, or, for a very fine polish, putty powder.

In labial interstitial cavities, not including the lingual wall, these round inlay discs are very useful, but are only safe when the decay is at least one-eighth of an inch from the cutting edge. They are applied in exactly the same way, with these modifications—

(i.) The inlay should have parallel walls, and the grooves should be cut only on the surfaces that are not exposed when fixed.

(ii.) The cavity must have parallel walls at all its external margins so as to fit the inlay interstitially.

(iii.) If possible, the cavity should be cut into more than a half-circle so as to be retentive in shape.

It is a very small step from the above cavity to one that also includes the lingual wall. There are several ways of stopping this cavity, but all of them have one thing in common, namely, they taper from the labial to the lingual wall, so that they can only be displaced forwards. The great fallacy of this principle of antero-posterior taper is that a large number of caries are greater on the lingual than on the labial side, and would be better fitted if the inlay were reversed.

The only practical way out of this difficulty is to partly fill the cavity with some substance like gold or amalgam, so as to get the taper in the right direction. Then with a tapering cone inlay burr, cut from the anterior to the posterior wall of the cavity, care being taken by previous separation, etc., not to injure the neighbouring tooth. Tapering cone inlays are provided to exactly fit these cavities, but to insure a perfect fit they should be fixed on the carrier as before described and ground gently into the cavity. Mark before and behind with a pencil and remove. If the cavity is less than a half cone it will be necessary to cut longitudinal grooves on the internal wall, but take care not to bring them too near the anterior surface. Cement, fix in, and finish as before, and see that the inlay is pressed well home so that it touches as much of the cavity as possible, as the less cement there is the better.

Very often two neighbouring teeth are affected by caries in approximal areas, and to provide for this a very ingenious split taper cone has been thought of. The caries is removed with the conical bar, without separation, so that the conical hole is half on one tooth and half on the other. The splint tapering cone, which is made by fixing two half round pieces of porcelain together with shellac and string, is ground into the cavity marked as before, removed, and cut off, having previously been grooved for retention. Next the teeth are separated and the cone divided. The fixing and finishing do not differ from the other inlay.

Mr. Howard's method of filling interstitial cavities is interesting and beautiful, and is done in the following way:—The usual tapering cavity having been cut, the sides are next ground flat by means of strips of "Flero" dividing files, one and a quarter inch long, by one-sixth to one-eighth inch wide, with edges turned. These are fixed into holders and used as files. A flat-sided, wedge shaped, tapering rod, with just sufficient wedge to make a transverse section an imperfect oblong, is used, and the cavity is filed to fit this, so that when finished it is a flat groove with its anterior opening

larger than its posterior, and its floor larger than its interstitial. The porcelain is thus self-retaining and requires very little support from the cement.

In stomatetic teeth with a transverse row of pits right across from the mesial to the distal side, some operators are in the habit of grinding a groove right across the tooth with an inverted cone, thus making the cavity dovetailed. Into this a wedge-shaped strip of porcelain is roughly fitted, with the thin end towards the floor. Some pumice having been placed into the cavity, the inlay is moved from side to side, and as it only touches the tooth at the anterior margins of the cavity, it rapidly cuts its way into the tooth, thus giving a very good fit in front. Of course the interstitial walls do not attempt to fit the porcelain, but this can be remedied by the insertion of a little gold or amalgam.

Oval labial cavities may be filled in either of the following ways *after the removal of all the decay*:—

(1). Cut the cavity with great care so as to fit one of Dall's oval inlays which can be procured of almost any size and colour necessary. The only difficulty about this filling is the cutting of the cavity to the exact size and shape so as to have a perfect fit.

(2). Another way of putting in an all-porcelain inlay in these cavities is to cut two circular cavities overlapping each other in about a quarter of their extent. Next separately put in two inlays, and when each of these is perfect by itself, cut them on their approximal sides till both can be inserted together, giving a dual inlay with a join along its median line.

(3). Porcelain can, of course, be used in conjunction with gold in these cavities in this way. Part of the decay is cut away in a circle and then the rest removed. The porcelain is inserted in the circular part and the gold packed into the remainder of the cavity. The advantage of this over an all-gold filling is that it is much less conspicuous.

Having described all the simpler kinds of porcelain inlays, we will now go on to the much harder kinds known as compound porcelain inlays. The great object in all compound inlays is to reduce the cavity with gold or amalgam as far as possible to the simple form, and then insert the inlay so as to get the natural appearance on the labial aspect. The best way of doing this is the following:—Prepare the cavity as for a gold filling, only making the retaining points and grooves much stronger, as the gold will have practically no labial wall for support, Then cut the cavity that is to receive the porcelain, which will probably have to be fitted, as in most of these cavities the decay has been rather too extensive for model inlays. Cut the porcelain part of the cavity rather larger than that for the gold, so that when the latter is in place there is a cavity with its floor partly of gold and partly of dentine. Place a pellet of cotton in the lingual part of the cavity and fit the porcelain in the labial, then remove porcelain and cotton and pack in the gold right up to that part of the cavity reserved for the inlay. Groove the inlay along its interstitial back edge so that the gold may be burnished into it after fixing. Roughen the co-apting gold and porcelain surfaces and fix with cement; afterwards burnish the gold, as said. If these cavities include the cutting edge it is necessary to procure further strength by the insertion of a gold anchor screw in the lingual wall near the cutting edge, and also by leaving one or both pins in the porcelain and drilling holes in the gold to receive them.

If amalgam is used instead of gold all the surfaces of the cavity and the posterior surface of the inlay should be covered with a thin coat of cement to prevent discolouration. Any gold anchors, etc. should also be covered to prevent the destruction of the metal by the mercury.

Gold Lina inlays are made from any of the previous inlays by prolonging the gold right to the labial margin of the cavity. The advantages are, (1) to prevent decay, (2) to help retain the porcelain. The disadvantage is that it spoils the appearance.

Mr. Dall, the great authority on inlays, sometimes cuts them out of American gum teeth when he is putting an inlay into the neck of a tooth, so that he has a gum-coloured piece of porcelain where the natural gum is; but this, I think, is unnecessary, and must look rather bad as the gum recedes. A better plan is the packing of gold along the cervical border of the cavity, for if this is seen it is mistaken for a small filling, and it certainly adds to the permanency of the work.

Messrs. Ash & Sons are now selling inlays ground to half-pear, half-round, oval, or crescent shapes for the filling of irregular cavities in different positions.

The latest inlay out is Dr. Jenkins' porcelain enamel which is made in the following way. A cavity having been prepared with no undercuts, is well dried, and gold foil, No. 30, is pressed into it with small pellets of cotton until the foil exactly fits all the edges, being an exact duplicate of the cavity. The cotton having been carefully removed, bit by bit, the foil may be burnished if it does not fit perfectly and have sharp edges, but this is generally not necessary. Gently loosen the impression and remove from the cavity. If there is any chance of a difficulty in removal of the foil, it is a good plan to run a thin film of vaseline over the cavity before the foil is pressed home. By folding the foil twice diagonally, and then opening it, one has a slightly concave shape, if I may describe a flat-sided hollow so, which is much easier to insert into the bottom of the cavity. Now that the gold foil impression is ready, we select a colour from the shades nearest to the natural tooth when it is wet. Imbed the impression in asbestos and water placed in a platinum cup supplied with the outfit, care being taken that the asbestos comes up to the edges of the impression so as to prevent the foil from contracting with the shrinkage of the enamel. Place upon the slab some of the chosen inlay powder and mix it with absolute alcohol, then with the spatula fill the foil up to the edges with the well-moistened mixture. Cover up and place over the hole in the muffle and turn on the gas very slowly till the asbestos is dry, when it should be turned

higher so as to melt the enamel. This will have to be done once or twice more before a perfect contour is obtained as the material shrinks considerably. This material flows slowly, which is a great advantage in contouring, and can be cooled rapidly without fear of cracking. The edge should be examined carefully before the removal of the foil, which is easily peeled off. If the impression is properly taken and removed the filling will fit the cavity exactly and firmly. Next cut grooves in both inlay and cavity, and, using the cement as before, push into place with a piece of wood or in approximal cavities with a piece of silk or tape. Some hours later, remove the overplus of cement, and, if necessary, it is possible to grind and polish this enamel, though the result is not quite so good as the polish from fusing. The inlay should now be almost invisible to the naked eye.

Dr. Jenkins' outfit consists of a heater, or muffle, a platinum melting cut for inlays, and one with a spiral wire for first teeth, bellows and blow-pipe, colour shades, unpolished agate palate, and spatula; also eighteen bottles of porcelain enamel.

For this apparatus, and he insists on your buying the whole outfit or nothing, he wants four hundred marks or about twenty pounds.

Glass inlays are made on practically the same lines as Dr. Jenkins' inlay, only glass, which fuses at a much lower temperature than porcelain, being used, no muffle is needed as the ordinary Bunsen burner will give all the heat required, which is a bright red colour. The glasses, mixed with water and not alcohol, are also more liable to crack if cooled too quickly. To avoid bubbles it is necessary to pack in the paste in small quantities.

The first lot of glass should be put in the foil while it is still in the cavity, as it gives the gold more solidity for removal. Of course glass cannot be ground after the final fusing as it will not polish at all. As far as I can find out glass inlays are not a success in the mouth, as they discolour and become unsightly after a few months wear.

I must apologise for not being able to deal, for want of time, with that large branch of porcelain work, in which a third or more of an artificial tooth is backed and, with or without a pin, inserted into a tooth to make good considerable decay or fracture. Some of these inlays might almost be called partial crowns, being the connecting link between crown and inlay work.

A very useful and absolutely necessary gauge for fitting inlays can be made in the following simple way. Get an old tooth brush handle and drill holes into it with all your stock of inlay burs. This gives a gauge that has exact duplicates of any cavity you will cut with the instruments at your disposal, and is invaluable for rough fitting of inlays in the laboratory.

A diamond trephine has been invented for the cutting of round pieces of porcelain from mineral teeth. This instrument is made in sizes, corresponding to a set of burrs.

Before concluding, I must make a few short remarks about the different modes of fixing in inlays:—

1. Osteo.—Cement, of course, is the most usual material employed, and should be mixed quickly and thin, when everything is ready for insertion. Don't use it too generously or it may prevent the inlay from going home, and it certainly will prevent your seeing if the inlay fits, and is in the right position. Give the cement every chance of setting well by covering it with wax, and not grinding or straining the inlay for at least five hours. Never use a brush to polish inlays set in with cement, as it will whip out part of your osteo. Always have the cavity and inlay perfectly dry and clean before fixing. Do not get a lot of cement on floor or cavity where it cannot escape. Remember that the thinner the margin of cement, the slower will be the wasting from acid action, and that cement modifies the colour of the inlay which is more or less transparent.

2. Amalgam.—Amalgam will not adhere to porcelain by itself, but will hold it in well if there are pins or other catches for it to surround. If used, all discolourable surfaces and gold should be covered by a thin coat of cement. The great advantage of amalgam is that it is a permanent filling. Dr. Land says he has discovered a method of making amalgam adhere to porcelain. He fuses on to the back of the inlay a biscuited layer of porcelain, which he saturates with a solution of gold. On this amalgam is packed, and adheres so firmly that it will sustain a weight of 200 lbs. to the square inch. Unfortunately, I have been unable to find any particulars of the value of this method, but should think that it would considerably alter the colour of the porcelain.

3. Gutta-Percha.—Gutta-percha is an exceedingly good joining medium and is used in the following way. Make the inlay, gutta-percha, and instruments hot by means of hot water under a dry plate or some special apparatus. Dry out cavity and smear it with gutta-percha soft enough to be sticky. Place inlay in cavity and push home with a hot instrument large enough to retain and impart the heat to the warm inlay sufficiently to completely soften the gutta-percha so that the surplus will exude. Then substitute a cold instrument till normal temperature is reached. Finish inlay at once.

4. Gold.—Gold is used for fixing as I have already described, by the retention of the pins, by burnishing round edges of inlay, or by packing round margins of cavity and inlay.

Another method is by packing three or four claws of gold into the tooth at the margins of the cavity, at an angle, and running into small external notches in the inlay, holding it like a stone in a ring.

Mr. President and gentlemen, I must thank you all for the kind and attentive way in which you have listened to my rather long discourse. I must also thank the several members of our staff who have been most kind in showing me practically the work I have just described.

I am indebted to Messrs. Ash & Sons for the loan of Dr. Jenkins' outfit which I have shown.

A discussion followed, in which the President, Messrs. Parfitt, Dowsett, Bell, Ash and Pearce took part.

A vote of thanks was given by the President to Mr. Wilkes for his paper, terminating the meeting.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

Classes for the Final Fellowship.

DEAR SIR,—Frequent suggestions have been made at various times as to the advisability of having classes in order to prepare men for the Final Fellowship Examination. Having recently had the good fortune to pass successfully through this ordeal, I desire to put before those readers of the GAZETTE who may think of entering for this examination at some future date, a few suggestions as to what kind of classes would be of use to them. The Fellowship is pre-eminently a practical examination, and is only possible for men who have had a practical education. The extent of one's reading need not be great, as a knowledge of rare diseases is not asked for, but a thorough knowledge of the groundwork of surgery is an essential.

Candidates for the highest qualification which our college has to confer, are expected to pay strict attention to details, to possess the confidence, which a thorough knowledge of one's work gives a man, and to have a definite opinion of his own on the value of the different methods of treatment, an opinion derived from what he has seen during his studentship.

If the authorities desire to institute classes to aid men preparing for this examination, and under certain conditions this would be a great advantage, I would suggest three things:—

First—That the classes consist only of those men preparing for the Final Fellowship Examination.

Second—That the teaching be principally clinical, cases of special interest being chosen from the various wards and out-patients, by gentlemen appointed to take the class, and also that the class shall include—

a. A special operative surgery class.

b. Demonstrations and surgical pathology in the museum itself.

c. Demonstrations on surgical anatomy.

Third—That the class, being a class for special instruction, and being strictly limited, members should pay an inclusive and special fee.

The intolerable present arrangement by which men desiring a course of operative surgery are compelled to go to Greenwich, or some other hospital, is a stigma on this hospital.

Anything of the nature of a cramming class, or a "note book and pencil" class, is not only useless but also harmful.

Objections to holding any class at all, of course, have been advanced. That men have reached a stage when they are of sufficient advancement to know what they want and to seek it themselves, and that any attempt to direct a man's studies at this period would be resented. Also that men want too much feeding, and "spoon food" exists in superabundance.

To these objections I would suggest that, as regards the first, the classes I have advocated would only assist men to obtain what they undoubtedly want, and would not in any way *direct* their work; and the second is only too true, and it is that kind of teaching which is to be avoided.—I am, yours, etc.,

ARTHUR W. ORMOND.

November 30th, 1898.

Reviews.

Atlas of Clinical Diagnosis and Internal Diseases. By Dr. C. Jakob. Translated from the German by A. A. Eshner, M.D. (The Rebman Publishing Company, Limited. 1898. With 182 coloured illustrations on 68 plates, and 64 illustrations in the text. pp. 259).

This is essentially a picture-book, and the chromo-lithographs are executed with great beauty and considerable accuracy. They are mostly obtained from cases in Dr. Jakob's clinic. The conditions illustrated are the various normal and pathological blood-states, sputum, and urinary deposits, with representations of various colour reactions. The urinary deposits are especially commendable. The only fault that can be found with many of the illustrations is that the exact magnification is not stated. Then follow sections on the "Normal projection of the viscera and percutory topography," and diseases of the lungs, heart and abdominal organs. As may be supposed, these are in some cases only diagrams, but still artistically executed. The text consists of details of the various methods of examining the patient. The least successful part of the book is the "Epitome of Special Pathology and Treatment," which might well have been omitted and its place taken by succinct directions for obtaining the highly successful stains represented.

Elements of Histology. By Klein and Edkins. (London: Cassell & Co., 1898, 7s. 6d., pp. 438, 289 illustrations).

Klein's histology is one of the series of solid little red books, and the new edition, amplified in several places, but more especially in the chapters on the central nervous system, looks fatter than ever. Whether this increase of girth will be pleasing to the student probably depends on the student's method of working. Men who read the book and "spot" their specimens are likely to prefer something shorter, *e.g.*, Schäfer's Essentials. On the other hand, men who read the specimens and use the book for reference are often glad of a pretty full description. The new chapters are clearly written, and the illustrations, both photographs and wood-cuts, are first-rate. Perhaps after saying this we may point to two sins which this book commits, and so do nearly all the "books for students" that we ever read. But a common sin is none the less wicked. The first of these is much the greater. In no part of the book can you read many pages without coming across an opinion

quoted simply on the authority of some professor without a word as to the evidence which gives the opinion its only value. We venture to think that in writing for his equals, Professor Klein would never dare to set up the authority of a name in this way, and if the student is father of the professor, how can it be wise to lead him so headlong downwards to habits of cramming and loose thinking. The second sin, which resembles the first but is not half so serious, is the habit of quoting the name of an observer without any further reference to the observation. If the student is meant to have a chance of referring to the original work, then the name is not often a sufficient reference. If he is not meant to do this, then why in the world should you go to fill him with names like a parrot. But text-books being necessary evils we have nothing but praise for this one.

A Manual of Surgery. By Rose and Carless. (Bailliére, 21s. net).

This book fills a gap which exists for a work intermediate in size between the smaller text-books such as Walsham, and the larger books like Erichsen and Treves. Being about half the size of the latter, it will probably suit the man who is going up for his degree in surgery and is rather pressed for time, or, on the other hand, the conjoint man who finds Walsham a too concentrated mental diet, or who does not wish to get through on a minimum of knowledge. The authors have managed to give a trustworthy, modern, fairly complete, and conspicuously clear account of surgery within a moderate compass, and that is saying much.

The book is not a mere compilation, since the authors have drawn upon their own clinical experience. Thus they mention cases of rupture of the vas deferens, of psoas abscess resulting from hip disease, and other unusual cases which have been under their care, a fact which adds much to the value of the book. The evenness and perspective of the book show the advantages of the individual as opposed to the co-operative method of writing a text-book. As a rule it may be said of the articles in the fashionable "systems" that

"When they are good, they are very, very good,
But when they are bad, they are 'orrid."

In "Rose and Carless" the curve of excellence never becomes subnormal, though it may not rise to giddy hyperpyrexia.

A few quotations from the index will perhaps show that the book is up to date, *e.g.*, Antistreptococcic serum, use of, before operations—Branchial clefts, affections of —Coley's fluid — Coxa vara — Eucaine — Gastrectomy— Glenard's disease—Maunsell's operation—Metatarsalgia —Oöphorectomy in cancer of breast—Picric acid in treatment of burns—Pneumectomy.

The illustrations are numerous and include some skiagrams of joints and fractures. The accounts of the rarer affections are printed in small type.

The description of antiseptic precautions to be observed during operation is the routine in use at King's College Hospital. It must be said that they do not seem to be as vigorous as the reputation and results of the hospital would lead one to expect. The hands and nails are to be cleansed with soap and nail brush, and then immersed in 1 in 20 carbolic lotion. Experience at Guy's leads one to think that carbolic lotion of that strength is a specific for producing a rough dirty skin, impossible to clean. Later, the authors say, "it must be clearly understood that absolute sterility is not essential, though very desirable." This statement is surely a curious instance of misplaced emphasis. Nothing is said about the dress of the surgeon and his assistants.

Instruments are sterilized in a broth of carbolic lotion 1 in 20, and if a new instrument is required it must be first dipped in pure carbolic acid before being put with the rest, since carbolic lotion takes an "appreciable" time to act. Serrated forceps must be cleaned with special care. Boiling is dismissed in the last two lines of this paragraph as being "also a potent means of rendering instruments aseptic."

With regard to ligatures, the skin of the patient and the area of operation, the precautions taken seem to be very thorough. The ideal aimed at throughout is antisepsis for the external parts, asepsis for the interior of the wound.

In the section on ligature of arteries, the line of the ulnar artery is given as from the centre of the bend of the elbow to the radial side of the pisiform bone. Is the line of the bow the same as that of the bowstring? It is stated that the abdominal aorta has never yet been tied even on the distal side of an aneurism, a statement which hardly does justice to the enterprise of Sir Astley Cooper. A Guy's man may also object to the description of enucleation of thyroid adenomata as "Socin's operation." But perhaps "Socin's" is a misprint for "Symonds"?

Small omissions may be detected here and there, *e.g.*, in the section on intussusception it is not stated that the tumour varies in consistency. The authors say, "In acute intussusception the child should be at once placed under the influence of opium . . . Possibly a cure may be in this way induced, but if the symptoms persist inflation of the bowel . . . may be carefully undertaken." Father Time is a great physician, not much of a surgeon, but is he competent to treat intussusception, even when assisted by opium? Probably the authors meant nothing of the sort, but surely their advice as it stands is apt to mislead.

Errata are few and far between, and the index is a good one. The type is good and the pages of a comfortable size. The difficulty of finding fault with the book except on points of detail shows its general excellence.

H.

Nine Medical Songs.—This book is full of good things, and deserves wide popularity, which it will doubtless attain. Written as it is by the George's men, it will necessarily appeal, in the first instance, to past and present members of that hospital, but there is much which will appeal to outsiders, and the authors are to be warmly congratulated on a collection of songs, all of which are good,

though naturally, some are better than others. Personally, we consider "The Bronchitic's Love-Song" the most successful; it is a right merry conceit, the words are witty and the music all that it should be. Throughout the collection the lines are clever and well turned, occasionally rising to inspiration. For instance, the climax of "The Lament of the Large White Kidney,"

"Better to pine in spirits of wine
Than the loin of a large white man,"

is distinctly precious, and will not be willingly forgotten. The delicate sarcasm of "Would I were a Surgeon" is true enough to be really funny, without being too true—a happy result not easily obtainable, as some of us know only too well. As a whole, we consider the music good; the difficulties of writing songs to suit the average compass, easy accompaniments and catchy melodies are very real, and the composer has done his task with much skill. The book is well got up and printed, and, most interesting and important part, may be obtained of the Librarian at George's for 2/9, post free. Buy it!

Mellin's Food.

Experiments carried out in the physiological department fully confirm the statements made as to the characters of this preparation.

The carbohydrates it contains are wholly in a soluble form, no unaltered starch being present. It is needless to emphasize the importance of this in infant feeding. One of the chief dangers in the use of certain well-known infants' foods is found in the large proportion of starch they contain—a proportion with which it is quite beyond the power of the infant digestion to deal. The contrast between Mellin's food and another much used preparation is very striking in this respect; while in the former the carbohydrates are, as we have said, wholly soluble, in the latter the mode of preparation is such that while a certain amount of dextrinisation has been obtained, there is a residuum of starch in a more than ordinarily insoluble and indigestible form.

So far as experiments *in vitro* are to be accepted in evidence, we have ourselves proved that the *proteids* of Mellin's food are in a form readily susceptible of digestion, and we have ascertained that the saline constituents are present in satisfactory amount both absolutely and relatively.

Undoubtedly this food is of its greatest value when used as an addendum to diluted cows' milk—a mode of employment recommended by the proprietors. In increasing the soluble carbohydrates of the milk, and in adding *soluble* proteids in not too large amount, it forms undoubtedly a desirable adjunct.

In this regard, too, we venture to remark upon a point which is probably of as little practical importance. Bunge long ago called attention to the deficiency of milk in compounds of iron, giving at the same time the teleological explanation of this deficiency in the fact that the body of the newly-born infant is abnormally rich in iron, so that at first this constituent is not required in the diet. With growth, however, this proportionate excess in the body rapidly disappears, and the need for assimilation of iron becomes progressively greater. The deficiency of iron in milk may be made up by the addition either of meat diet or of certain forms of vegetable food. These contain those organic compounds of iron which are believed by many to be of special importance as precursors of hæmoglobin. While much is undesirable for young children, most adjuncts to milk of vegetable origin offer the objection of being indigestible. This, however, is certainly not true of the preparation we are now discussing, and a very few tests convinced us that Mellin's food contains sufficient organic iron to be a valuable adjunct to milk in this respect.

Normal milk is stated to contain 0·000116 per cent. iron in the dried residue, or 0·000015 per cent. in the normal liquid. By careful analysis of a large quantity we found that Mellin's food contained 0·01 per cent, of iron, calculated as metal, in the dried substance. Mellin's food therefore contains approximately 100 times as much iron as the dried residue of milk,

We believe, therefore, that this fact alone should recommend its addition to milk, at any rate in the dietary of the later months of infancy.

A comparison of this food in the laboratory with other preparations sold as "infants' foods" quite explains and justifies the preference shown for it in most out-patient departments where unhealthy children have to be prescribed for.

Analysis of a mixture of Mellin's food, water and cow's milk, prepared in accordance with the directions, viz.:—Mellin's food, one tablespoonful or half an ounce; water, two ounces; cow's milk, six ounces.

Mellin's food (Fresenius' analysis)	5·88	Water	·78
		Dextrose, maltose and dextrin	4·27
		Nitrogenous matter	·57
		Salts	·26
Water	23·53	Water	23·53
Cow's milk	70·59	Water	61·03
		Lactose, etc.	2·68
		Butter	2·54
		Casein	3·88
		Salts	·46
Totals ...	100·00		100·00

Comparative analyses of human milk and Mellin's food:—

Average human milk.		Mellin's food as above.	
Water	87·81	... ...	85·34
Sugars	5·78	... ...	6·95
Butter	3·90	... ...	2·54
Nitrogenous matter ...	2·18	... ...	4·45
Salts	0·33	... ...	0·72
	100·00		100·00

Sport.

Rugby Football.

GUY'S "A" v. BECKENHAM.

This match was played at Beckenham on Saturday, November 19th, under favourable conditions of weather and ground.

Owing to the fact that several of the members of the team were filling vacancies in the first Fifteen, and that others found it necessary to scratch at the eleventh hour, the Hospital representatives were somewhat disorganised, and failed to sustain the good record held by the "A" team for this season; they were, however, distinctly unfortunate in sustaining a defeat of 11 points, as play was of a very even character.

Losing the toss, Beckenham went off with a rush, but our forwards, having begun in a very scrambling manner, soon pulled themselves together, and transferred the game to neutral territory; the scrum was pretty well balanced, but the tackling of our halves was high, and their passing erratic, so that little advantage was taken of several good openings. A forward rush carried the ball down to the Beckenham quarters, and after some loose scrimmaging, Gibson attempted to fall over the line, but was held up. The Beckenham three-quarters repeatedly got away, combining well, but good tackling on the part of D. P. Watson and Pierce prevented them from doing much, and half-time arrived without either side having scored.

Soon after the recommencement, Guy's by good loose work invaded the Beckenham line, but a touch-down was the only result, and play was fast and even for some time. From a line-out, however, the opposing three-quarters got away, and Brown scored, the kick being unsuccessful. After this our defence became decidedly weak, and Beckenham again scored twice in rapid succession, one of the goals being kicked. With a very few minutes to go, Guy's made a determined rush, and all but scored, but were unable to break through the home defence, and the call of time left them defeated by 1 goal and 2 tries to nil.

Of the forwards Glendenning was decidedly the pick, while Pinching, C. Watson and Wood also played well. D. P. Watson tackled and stopped rushes well as centre three-quarter, but naturally found the position strange. Pierce and Pye-Smith also played well, especially when attacking. Team:—

Guy's.—E. N. Jupp (back); J. T. Hicks, C. D. Pye-Smith, D. P. Watson and F. J. Pierce (three-quarter backs); G. S. C. Hayes and W. Jarvis (half-backs); M. D. Wood, C. Watson, C. J. Pinching, B. Glendenning, L. Moiser, M. A. Collins, G. Nunn and F. G. Gibson (forwards).

GUY'S "A" v. ST. BART'S. "A."

This match was played at Winchmore Hill on Saturday, November 26th, and resulted, after a poor game, in a win for Guy's by 1 try to nil, D. P. Watson scoring just on call of time; the kick was unsuccessful. Team:—

Guy's.—E. N. Jupp (back); F. J. Pearce, H. V. Bagshawe, J. Lewis, C. F. Witcomb (three-quarter backs); C. D. Pye-Smith, W. Jarvis (half-backs); H. S. French, P. T. Manson, E. H. B. Milsom, B. Glendenning, C. J. Pinching, D. P. Watson, M. A. Collins, L. Moiser (forwards).

GUY'S 3rd XV. v. HONG-KONG and SHANGHAI BANK "A."

Played at Honor Oak Park on November 26th. Guy's kicked off, and the game settled down in the Bank's half. Our forwards packed well at first, letting the ball out clean, with the result that our three-quarters got some pretty passing in. Witcomb scoring out wide; the kick at goal failed, but shortly after, Bridger landed a good goal from a try scored wide.

After changing over our forwards began to slack in the scrum, and tackled badly. However, we managed to score three times in the second half. Guy's winning by 2 goals and 4 tries to nil.

Bridger played an excellent game at full-back. Lowison was good at half, though inclined to be selfish. Witcomb takes his passes well, and has a very good turn of speed.

The forwards started well, but slacked off in the second half, and used their feet badly both in the scrum and in the open. Team:—

Guy's. — Bridger (back); Witcomb, Ring, Willan, Reinold (three-quarter backs); Lowison, Kynaston (half-backs); Parrot, Jones, Travers, Dignum, Anderson, Smart, Collins, Humphries (forwards).

GUY'S 3rd XV. v. DULWICH COLLEGE 2nd.

In this, their sixth match, the 3rd XV. for the first time this season were beaten. Shortly before the match a practice game was played on the ground, this, combined with rain and heavy nature of the soil made the ground rather like a newly ploughed field. In the first half Guy's had rather the best of matters in the scrums and on several occasions rushed their opponents down the field, but as soon as the ball got loose it generally got kicked into the opposing three-quarter's hands and they made good use of the opportunities thus gained.

At half-time nothing had been scored. On re-starting, the good training of the School forwards showed, and a corresponding unfitness of the 3rd XV. forwards. The natural result of this was that the School got the ball more often, and by exceedingly good combination in their three-quarter line scored twice, both tries being converted.

Remarks.—The Hospital forwards played fairly well up to half-time, but after that they more or less fell to pieces, and with one or two exceptions did not play anything like as well as usual. They should be careful not to kick too hard when dribbling, and also not to fall on the ball in their opponents' twenty-five. The halves tackled well, but were not as smart as their opponents in getting the ball away. The three-quarter line, with the exception of Hicks, who did most of the work and played a plucky game, was disappointing, the tackling being of the feeblest description. They should take a lesson from

their opponents in the way of passing and endeavour to take the ball when going at full speed instead of keeping level with the man next them and stopping in order to be on side when the pass is given to them. Reinhold, at centre, is too apt to force his wing man too near the line before passing. Bridger, at back, was very safe, but should get his kick in sooner. There seem plenty of keen men in the team, and if the enthusiasm took the shape of a weekly trip to the ground for training purposes it would not be amiss Team :—

GUY'S.—R. P. Bridger (back); J. T. Hicks, C. H. Reinhold, R. Willan, C. A. E. Ring (three-quarter back); G. S. C. Hayes, A. W. Kynaston (half-backs); A. W. Gater, G. Nunn, H. McD. Parrott, W. W. Jones, R. G. Anderson, O. H. Dynum, G. T. Collins, G. Moir (forwards).

Association Football.

GUY'S v. IDLERS.

This was one of the most keenly contested matches of the season, ending in a draw of one goal each.

McAlpin appeared for us and played a good game while he lasted, but unfortunately towards the end of the first half, he was disabled and had to retire.

The Idlers won the toss and elected to play towards the Pavilion, and started off with a determined rush. This, however, was well broken up by our backs, Robson being especially prominent, and then play became fairly even. Towards the end of this half we obtained the first goal, Norton taking the ball well up the field, and centreing across the mouth of goal; Wiltshire put the ball through.

In the second half the Idlers played up hard, testing the strength of our backs severely, and had hard luck in not scoring from a good corner kick right into the goal. Many of them seemed to think the ball went through, but unfortunately the referee thought otherwise. However, shortly afterwards, through some neat combination amongst their forwards, they managed to equalise matters. Both teams now played up hard for the deciding goal, and we were hard pressed, but in spite of only having ten men, we managed to keep them out till time was called. Team :—

GUY'S.—F. M. V. Smith (goal); W. N. Robson, N. P. Shepherd (backs); R. W. B. Hall, H. B. German, J. McAlpin (half-backs); H. L. Dent, A. Hunt, H. P. Wiltshire, L. Norton, A. C. H. Gray (forwards).

GUY'S 2nd XI. v. BALHAM SCHOOL.

RE-PLAYED SURREY JUNIOR CUP-TIE.

This match was played at Balham on Saturday, November 26th, and resulted in a loss for Guy's by 4 goals to 2. Guy's started with ten men, Edmonds failing to put in an appearance, and as he did not turn up Shannon played unchanged. Balham playing downhill attacked at the start, but we soon got together, and after several runs on the left their goal-keeper was called upon to save and a corner was conceded. The ball was put into goal and a penalty was awarded for hands, from which Roberts easily scored. Guy's continued to play up well, but Pearson was injured and unable to run during the rest of the game. This made a large difference to the already weakened team and we were soon in difficulties. From a scrimmage in front of goal the ball was put in and Carter fell on it, but a goal was awarded. The same thing happened again a few minutes later and we crossed over a goal to the bad.

On re-starting, our forwards, although short, put in some good work and the home end was several times revisited. Camps made a good individual run and centred well to Roberts, who put us on equal terms with a splendid shot. Although we made great efforts we were acting on the defensive for the remainder of the time, and Balham added two more goals to their score. The whole team played an uphill game with great spirit and deserve credit, especially Carter, who saved splendidly in goal. Miles played well in the defence; he played back alone and took the goal kicks during greater part of the game. Roberts was the best of the forwards. Team :—

GUY'S.—H. Carter (goal); T. G. Miles, A. Pearson (backs); J. Shannon, D. G. Greenfield, P. P. Cole (half-backs); P. W. L. Camps, H. K. Lacey, W. O. Roberts, H. Morris, P. A. Peall (forwards).

Appointments.

CIVIL.

HOPKINS, F. GOWLAND, M.B., B.Sc. Lond., has been appointed to the new University Lectureship in Chemical Physiology at the University of Cambridge.

STANTON, T. W., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer for the Osbournby Sanitary District of the Sleaford Union.

BUNTING, DR. JAMES, has been appointed Deputy-Mayor of Torquay.

NAVAL AND MILITARY.

MR. CYRIL SHEPHERD has been appointed Surgeon in the Royal Navy, and posted to Haslar Hospital.

The following promotions appeared in the *London Gazette*, November 21st :—

MAJOR CHARLES GEORGE WALTON LOWDELL to be Lieutenant-Colonel; Captains JAMES HENDERSON SELLICK and EDWARD CHRISTIAN HARE to be Majors, Indian Medical Service.

Birth.

RYGATE.—On November 16th, at Horwood House, Witham, Essex, the wife of H. B. Rygate, B.A., M.B., B.S., F.R.C.S., of a son.

Marriage.

WARD—POOLEY.—On the 17th November, 1898, at St. Mary's, Liscard, by the Rev. P. M. Herford, uncle of the bride. Frank, youngest son of the late Thomas Ward, of Oxford, to Caroline Theodora (late Sister Job), eldest daughter of Frank Pooley, J.P., of Liscard.

Death.

HACON.—On September 20th, at Christchurch, New Zealand, Walter Edward Hacon, L.R.C.P. Lond., M.R.C.S., aged forty-seven years.

ED.—H. L. E.

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Notice.

All Communications, Articles, Letters, Notices, and Books for Review, should be forwarded, accompanied by the name of the sender, to the Editor, Guy's Hospital Gazette, *Guy's Hospital, S.E.*

Any of our Subscribers who may be desirous of having their numbers of the Gazette *bound should leave them with the Librarian.*

The annual Subscription to the Gazette *is* 6s. 6d.; *post free,* 7s. 6d. *All financial communications, as well a subscriptions, should be sent to the Financial Editor,* Mr. C. H. Wells, Secretary's Office, Guy's Hospital.

The charge for binding in blue, with the Arms of the Hospital in gold will be One Shilling and Sixpence.

Calendar of Coming Events.

December.

Sat. 17.—Messrs. Howse and Jacobson's take-in; Drs., M. A. Alabone and A. H. Davies; Cl., H. E. C. Fox.
1.15 p.m., Clinical lecture by Dr. Hale White.
G.H.R.F.C., I., London Scottish, away.
Schedules for First Conjoint Exams. to be left at the Medical School Office not later than this date.
Lectures cease.

Tues. 20.—Christmas Examination for first and second years' Students begins.
Christmas Examination in Anatomy for first and second years' Students.

Wed. 21.—Messrs. Davies-Colley and Symond's take-in; Drs., T. Morgan and G. N. Dyson; Cl., F. E. Walker.

Sun. 25.—Christmas Day.

Mon. 26.—Bank Holiday, Medical Office closed.
Out-Patients' Tea.
Entertainment in Wards.

Wed. 28.—Messrs. Lucas and Lane's take-in; Drs., R. C. Mullins and J. F. Northcott; Cl., K. B. Alexander.

Guy's Hospital Gazette,

DECEMBER 17, 1898.

A Christmas Carol.

It is considered a golden rule by those who are immediately concerned in the welfare of the Gazette, yet not compelled to write for it, that Christmas should not be allowed to pass without some few words of recognition and welcome from this paper. An excellent ideal to live up to, but somewhat hard to successfully carry out. Christmas, as many of our readers know, has now been a popular festival for some years, and it has had such an influence over the minds of those engaged in the fascinating and often futile pursuit of the muse of letters, that since its institution many and varied writers of some distinction have felt constrained to instruct the populace upon its importance at frequent intervals, sometimes nearly as frequently as once a year.

But fools step in where Dickens feared to tread, and we shall spend a happier Christmas wandering among the quiet seclusion of the wards of the hospital if we can justly say to our conscience that some five thousand—(note our circulation)—men of this upright and honourable profession have by some few and carefully-weighed words of ours had their thoughts pitched in the proper key to satisfactorily attune themselves to the universal concord of rejoicing.

It is not our intention to weary our readers by again reviewing for the two thousandth time this or that especial member of the glorious cohort of Christmas platitudes, for we pride ourselves that the great feature of this Gazette is originality both in the matter of knowledge imparted to the world at large and in the penetrating searchlight of our criticism.

And this last thought, had we the space, would open out the whole wide question of the immense importance of ignorance as an aid to criticism. It is worth while noticing in passing, however, that the truthfully ignorant man is the only critic worth listening to; the expert is always biassed. Hence our manifest ideal in these columns is healthy, God-fearing, ignorant criticism, and—run down whatever you don't understand.

To return to the subject of originality.—It is our idea this year to give a Christmas maxim for the guidance of men in the coming year, and we have chosen for the year 1899 that splendid aphorism of Marcus Aurelius Twain—

"Be virtuous and you will be good, but you won't have much fun."

Dr. Goodhart's Resignation.

RESOLUTION OF THE GOVERNORS.

At a meeting of a General Court of the Governors, held on Wednesday, the 2nd November, 1898, the following resolution was passed unanimously, viz. :—

Resolved, "That this Court accepts with regret the resignation by Dr. Goodhart of his office of physician to the hospital, and expresses its appreciation of the great services he has rendered the hospital during the long period he has occupied his important position on the hospital staff."

Resolved, further, "That the clerk be instructed to extract this resolution from these minutes and to send a copy of the same to Dr. Goodhart."

RESOLUTION OF THE STAFF.

At a Staff Meeting held on December 1st, 1898, Dr. Pye-Smith being in the chair, the following resolution, moved by the Chairman and seconded by Dr. Stevenson, was carried with acclamation :—

"The Staff of Guy's Hospital desire to convey to Dr. Goodhart the great regret with which they have heard that he has resigned his appointment as physician to the hospital, to express their appreciation of the invaluable services he has rendered to the hospital and medical school during the thirty-four years he has been connected with these institutions, and to assure him of the continuance of the affectionate regard in which he has always been held by his colleagues."

The Dean of the Medical School was instructed to forward a copy of the resolution to Dr. Goodhart, and he has received the following letter in acknowledgment :—

"25, Portland Place, W.

Dear Mr. Dean,

The resolution from my colleagues in council has greatly pleased me. It needs no saying that I am proud to have been associated with Guy's for thirty-four of the best years of my life ; and when I consider the great names on its roll of physicians and surgeons in the past, and the distinction of those who are with us now, I am prouder still to have been on its staff for twenty-one years, but I shall always like best of all to think that I have obtained, and keep, the affectionate regard of those with whom I have worked so long. Please thank all my colleagues, and tell them that I warmly reciprocate the kindly feeling they have each and all so invariably shown to me, and not least in this extract from the minutes of a meeting of the Staff.—Yours always,

James F. Goodhart.

Dec. 3rd, 1898."

A Case of Gall-Stones in the Common Duct causing Simple Infective Cholangitis.

CLINICAL LECTURE By Dr. W. HALE WHITE.

Gentlemen,—The case I want to bring before you is a very long one, so I have abbreviated the excellent report by Mr. W. P. Ker. A married woman, æt. thirty years, was admitted into Mary ward on July 20th, 1898, for pains in the right side of the abdomen, vomiting, and a temperature of 103·2° F. Her history does not begin to be important till eight months ago, when she had a severe attack of pain in the right side of the abdomen and back. Three weeks ago she had a similar attack, this time accompanied by jaundice and very light-coloured motions. Two weeks ago she had a third attack, and since then she has had repeated attacks of pain and vomiting accompanied by high temperature. During this fortnight her motions have been clay-coloured, she has sweated profusely, has had some shivering, and has felt very ill. On admission she was found to be slightly jaundiced; her temperature was 103·2°, her pulse was 104, and her respirations were 40. She was very thirsty; her bowels were regular, and the stools were light-coloured. The liver reached nearly to the umbilicus, it was uniformly enlarged, firm, tender, and smooth. There was a very tender point to the right of, and slightly below, the umbilicus. At this spot we thought there was an ill-defined swelling which might have been the gall-bladder, but we were not certain about it. The respiratory, circulatory, nervous, and generative systems did not present any symptoms to call for comment. The urine contained some bile, otherwise it was healthy. She was obviously in great pain. Soon after admission she had a rigor. She had had three shortly before admission. The diagnosis made was that the patient was suffering from gall-stones which, being in the common duct, caused the jaundice and enlarged liver, and that they, damaging the mucous membrane of the duct, had set up general infection through the branches of the portal vein, which return

blood from the walls of the duct. Hot fomentations were applied over the liver. The patient was given a little brandy, some lemon juice and barley water, and milk and bread and butter. On July 22nd there had been no further rigors, the temperature had ranged about 100°, the jaundice was less, and the liver smaller and less tender. As a result of an enæma she passed three small facetted gall-stones. On the 23rd her condition was about the same as in the last note, except that her temperature was about 103·4° on this date. On the 25th she was much better. The liver was smaller, the jaundice was not visible, and the pain and tenderness were less. The temperature was normal, she continued to steadily improve, and had a nearly normal temperature, till August 6th, when she had another rigor and the temperature rose to 102·8°; we thought that day that the gall-bladder could be felt to be enlarged. In spite of the rigor she had very little pain and tenderness over the liver. On August 9th she had another rigor. The temperature this time was 101·6°. From this date until August 31st she had very irregular temperature, usually it was normal or below normal in the morning, and rose to between 101° and 104° in the evening. Often this rise was accompanied with rigors, but they were never severe. More often, however, she simply complained of feeling cold all over; occasionally she was sick. She was not jaundiced during these three weeks, nor was there much tenderness over the liver, and this organ was not so large as before. In spite of this long-continued severe pyrexia she maintained her ground fairly well, although she sweated and looked ill. On August 30th she passed three fair-sized gall-stones. On September 6th she was much better. On that day she passed some large gall-stones, the largest being of the size of a cherry-stone. On the 11th she had an attack of pain over the region of the gall-bladder. This part of the abdomen was so tender that nothing could be made out on palpation. On the 17th she had another attack of severe pain in the same region. Her temperature at the same time rose to 102·6°. On that morning a large three-cornered gall-stone was found in her motions. The liver was rather enlarged again. On the 26th she had another rigor and an attack of pain. On October 1st she had another rigor, an attack of pain, and a rise of temperature to 102°. On the 3rd the patient passed two gall-stones, one of which was the largest she had ever passed. On the 8th the patient got up. From this time until October 16th she did uniformly well. She went out on the latter day. Her liver then reached to 1½ inch above the umbilicus, she was in no pain, and she had no tenderness over the gall-bladder. She looked quite well, and in spite of her attacks of pain and her rigors she had been gaining ground steadily since September 1st.

No special treatment was adopted. Hot fomentations, morphia injections, and slight inhalations of chloroform were used to relieve the pain. She was given plenty of light, nourishing food. She was always enticed by variations of diet to eat as much as possible. Usually, she was taking some gastric carminative stimulant medicine; her bowels were always kept thoroughly open. During part of her illness some antistreptoccocic serum was used, but it was left off as it had no beneficial effect.

I think the easiest way for us to handle this case will be to first of all consider what could be the cause of the jaundice. You will find enormously long lists given of the causes for jaundice, but in actual practice it is in adults nearly always due either to (*a*) the disease called catarrh of the ducts or simple jaundice; (*b*) cirrhosis; (*c*) cancer of the glands in the portal fissure or of the head of the pancreas; (*d*) some specific fever, usually yellow fever, ague, more rarely acute yellow atrophy or else epidemic jaundice; (*e*) phosphorus poisoning; (*f*) congestion of the liver, in this county at least due to backward pressure from the heart and lungs; and (*g*) gall-stones in the common duct. From time to time we see patients suffering from jaundice due to other causes, as in the man we had in some time ago, in whom it was due to a moveable kidney, but they are so rare as to be mere curiosities.

Now, our patient was far too ill to be suffering from (*a*) catarrhal jaundice; in this disease the patient is not very ill, he has congestion and jaundice with very little pain, and is in a few days quite himself again; probably the disease is due to catarrh of the duodenum spreading into and closing the duodenal orifice. Although both cirrhosis and cancer of the liver, especially cancer, may be accompanied by a temperature, it is never so high in cirrhosis as it was in our patient, and it would be quite exceptional to find so much pyrexia in cancer, although some striking instances are recorded by Osler. But our patient was very young for cancer, there were none of the other signs of it and the pain from which she suffered was not at all like it. Specific fevers of this country are very rarely accompanied by jaundice; there was no evidence that she had been anywhere where she could contract ague, and her whole illness was unlike

it. She had not got phosphorus poisoning, and she had no cause for congestion of the liver, so you see that by a process of exclusion we were able quickly to arrive at the diagnosis that she was suffering from gall-stones, a view which was confirmed by the history of paroxysmal attacks of pain in the region of the liver. Indeed, her account of them showed they were so severe and constant in position that in a woman they were of themselves almost enough to establish a diagnosis of gall-stones. You will notice that I have drawn no distinction between obstructive jaundice and non-obstructive. My reason is that the exact mode of production of jaundice is often so obscure that it is, I think, better at the bedside not to draw such a distinction, for it may lead you into error. In many instances there is undoubtedly an obstruction, but in some it is very doubtful whether there is. Probably in some forms of jaundice, as for example, that associated with malaria the yellow pigment is produced in the blood, but we must to-day keep to the clinical side of the case.

The other point to which I have not alluded is the statement made by the patient that the stools were light. Patients are such bad observers, shades of colour are so difficult to describe, and the stools vary naturally so much in colour that you should give very little weight to a statement about the colour of the stools. Always examine them yourselves, and even then remember that they may be very pale, especially if much milk is taken, quite apart from any obstruction to the flow of bile. Before you can decide from them that probably the bile duct is obstructed they ought to be of a light clay colour, hard and usually foul smelling.

Gall-stones are very common. The figures from the Strasburg Hospital show that 20·6 per cent. of all the female bodies examined contained them. They are especially common in married women and are very frequent in the decade from thirty to forty, so that you see they are very common in people of the age, sex and condition of our patient. Fortunately, however, the sufferers from them do not often suffer as our patient suffered. Usually they have attacks of pain more or less severe, and then as they grow older the attacks cease. Any of you who have attended necropsies regularly will bear me out in the statement that it is very rare to see death attributable to gall-stones, but it is also rare for elderly persons to complain of the symptoms produced by gall-stones, so we may conclude that, as a rule, either the stones are passed or they remain quiescent in the gall-bladder, and, in favour of the latter statement is the well-known fact that they are frequently found in the bodies of those in whom they were quite unsuspected during life.

In passing I should like you to notice that our patient's account of her earlier attacks of pain was very typical, for she made it quite clear to us that her pain was agonizing, sudden in onset, paroxysmal, and situated in the hepatic region. She, like other women, said that it was worse than the pain of labour. With her, as is usually the case, it lasted a few hours. The next fact that I want to bring before you is that the passage of a stone along the common duct not only frequently gives rise to an ordinary attack of biliary colic and transient jaundice, but as shown in our patient's earlier and late attacks, these two symptoms may be accompanied by a rigor and a rise of temperature; ordinarily the temperature is only raised a short time, the stone passes, and the patient is well. The cause of the rise of temperature in these cases is unknown. Generally it is thought to be reflex, and I have given you, when lecturing on pyrexia, other instances in which severe stimulation of the peripheral nerves will lead to pyrexia. Perhaps some day these attacks will be shown to be due to a micro-organism infecting from the bile passages and to be merely a slight degree of what will be described directly as simple infective cholangitis; if so, they are so much slighter that their clinical importance is quite different.

But the gall-stones in our case caused the patient to look ill, and she had prolonged pyrexia, the temperature in a few hours rising from normal to a considerable height, many rigors, attacks of sweating, vomiting, and an enlarged, tender liver in addition to her pain and jaundice. Gall-stones may produce these symptoms in the following ways:—(*a*) The stone may set up inflammation of the duct with subsequent ulceration, or perhaps the formation of a local abscess. Pyæmic infection may follow because the venous blood from the wall of the duct is returned into the portal vein, and as a result multiple small pyæmic abscesses in the liver may be formed. This condition of portal pyæmia is incurable. (*b*) Stones in the common duct may cause pain, jaundice sometimes severe, but often slight and variable (in which case we must suppose the duct is not completely blocked), an enlarged and tender liver, rigors, sweating, and vomiting, and pyrexia lasting many days without the formation of secondary abscesses in the liver. The probable explanation is that in these cases there is inflammation of the mucous membrane of the

common duct with subsequent infection, but if this is the right explanation it is a different kind or degree of infection from that which leads to multiple small abscesses in the liver, for patients may for many years be subjected to attacks like that of our patient. We may, provisionally at any rate, speak of this group as cases of gall-stones of the common duct, accompanied by simple infective cholangitis, which will distinguish them from cases with pyæmic abscesses and cases of suppurative cholangitis. Both streptoccocci and bacilli coli, which are so very variable in virulence, that either may well be the cause of groups *a* and *b*. (*c*) The gall-stone may set up suppurative inflammation of the common duct which quickly spreads back, and all the ducts in the liver become full of pus; this condition is called suppurative cholangitis. (*d*) The gall-stones in the common duct may have been producing only jaundice, and the other symptoms may have been due to an abscess in connection with some other stone, for example, there may have been an empyæma of the gall-bladder in connection with a stone in it or in the cystic duct.

When our patient came in, ill as she was, she did not seem ill enough to be suffering from suppurative cholangitis, and although we thought that the gall-bladder was tender and perhaps enlarged, we did not think the enlargement definite enough, nor the tenderness great enough for there to be pus in it, and we could find no evidence of an abcess elsewhere, so we concluded that, either she was in the early stage of (*a*) portal pyæmia, due to gall-stones in the common duct, or that she was suffering from (*b*) simple infective cholangitis, due to gall-stones in the common duct. As I repeatedly pointed out to you at the bedside, the difference between the two diagnoses was probably only one of degree; in both cases we believed that infection was taking place from the mucous membrane of the common duct, and, therefore, we often spoke of her loosely as suffering from portal pyæmia, but kept the two above possibilities, (*a*) and (*b*), before us.

Some of you asked me what the word "cholangitis" meant. It simply means inflammation of the mucous membrane of any part of the biliary passages, and, therefore, the word is allied to such words as "gastritis," "enteritis," etc. The word is coming very much into use. It sounds a little uncouth, like most of the modern terminology connected with the bile passages. Fancy how pleased the old woman, who liked the word "Mesopotamia," would be if you told her that she had "cystic cholelithiasis associated with infective cholangitis, that if an operation was necessary you could either do cholecystotomy, or cholecystendysis, or cholecystectomy, or cholecystenterostomy, or cholecystolithotripsy, or choledocholithotomy, or choledochostomy, or choledochoenterostomy, or choledocholithotrity, or choledochectomy, or choledochoduodenostomy, or cysticolithotomy."

You will remember that on July 22nd the patient passed three gall-stones, and that from July 25th to August 6th she was pretty well, with a normal temperature. This went a long way to confirm our diagnosis that the gall-stones had carried simple infective cholangitis. From August 9th to August 30th she had such high irregular temperature that we often feared that after all the gall-stones had set up portal pyæmia, with small abscesses in the liver. The only thing against this view was that she did not lose ground so much as would have been expected if it were correct. She improved so much during September that it was quite clear she never had pyæmic abscesses in her liver, and that the diagnosis of simple infective cholangitis, due to a gall-stone in the common duct, was correct, and the illness during August shows you how severe this infection may be. Whether you should regard the rigors and transitory rises of temperature, associated with the passage of gall-stones, which occurred during September, as mild instances of the same infective process, is open to question, but clinically there is no doubt that they are examples of the fact that I have already pointed out to you, that the passage of gall-stones will often cause a rigor and transient rise of temperature.

The disease from which our patient suffered, namely, gall-stones in the common duct, accompanied by simple infective cholangitis, is fortunately not common. There is a very good collection of eight cases by Dr. Osler in the John Hopkins Hospital Reports for January, 1890. I have already given you the symptoms, and we will now consider them in detail. The jaundice is usually deep, and, like all long-lasting jaundice, gradually gets darker as time goes on; sometimes, however, as in our patient, it is only slight. Whatever its maximum depth, it varies much in intensity from time, and may, as in our case, go altogether. Generally when a rigor or chill comes on it deepens considerably, but this was not so with our patient. These variations in intensity are difficult to explain, for the stone is always present, and in most of the cases some bile must get past it. Possibly the variations are due to variations in the swelling of the mucous membrane near the

stone. The jaundice may last for years, and it may be accompanied by any or all of the phenomena due to the circulation of bile in the blood. The pyrexia occurs in paroxysms usually associated with rigors. The temperature rises suddenly, sometimes as high as 105°. The patient feels cold, often shivers very severely, her skin is dry, but in the course of a few hours it becomes moist; she sweats profusely and the temperature falls as quickly as it rose. The paroxysms generally occur at irregular intervals and Osler says he has seen them recur daily for a week or ten days; but ours was a more severe case, for in the worst group of attacks they occurred daily, sometimes two a day, continuously for three weeks. In very mild paroxysms a slight rise of temperature, a feeling of chilliness, or sweating, may either of them occur alone. Even when the attacks are severe the intervals between single paroxysms or groups of paroxysms may be several days or weeks, so that the whole illness may be spread over months or years. Pain is nearly always present, sometimes very severe and agonizing, genuine, severe hepatic colic. In other cases it is very slight, and, as in our patient, it may be very severe during some attacks and not in others. Vomiting often accompanies an attack, our case illustrates this. There may be nausea and a furred tongue. The liver is generally uniformly enlarged, smooth and tender. Our case exemplifies this and appears to show that the gall-bladder may be enlarged and tender. It is very noteworthy that the patients do not lose flesh much, and quickly recover from their attacks. This was very noticeable in our case.

You must bear in mind that the common duct may be completely obstructed by a gall-stone or stenosis for many months without producing the train of symptoms here described. On the other hand, it is said that simple stenosis may cause them. You see here the gall-stones this woman passed, and it must at once strike you as impossible for them to get through the narrow orifice by which the duct opens into the duodenum, but you will remember that the duct lies in the wall of the duodenum for three-quarters of an inch and what happens is that the stone lying in this position ulcerates into the duodenum. When once this has occurred other stones can easily pass through the opening.

I do not think that in England there ought to be much difficulty about diagnosis from other diseases; but in countries where severe malaria is common, and especially where it makes the patients yellow, the diagnosis may be very difficult, for the paroxysms and shiverings which characterise the disease we are discussing very closely resemble ague, and indeed the diagnosis has sometimes been only satisfactorily made after finding the malarial parasite in the blood. But it may be very difficult to tell whether the gall-stone is setting up merely a simple infective cholangitis, suppurative cholangitis or portal pyæmia, for the diagnosis will rest upon the correct estimation of the severity of the symptoms. A very good example of this difficulty occurred in a woman, aged fifty years, whom I saw with Dr. A. G. Wells. She had rigors, an irregular high temperature, jaundice, a tender liver, and was desperately ill. The position was explained to her friends, and in the faint hope that it might turn out to be simple infective cholangitis, and that it might be possible to remove a stone, Mr. Arbuthnot Lane opened the abdomen but could not reach the common duct because the parts were so matted from old local peritonitis due to gall-stones. At the post-mortem examination I found the liver studded with pyæmic abscesses, a stone in the common duct, the biliary passages inflamed and the lining membrane in places gangrenous.

The treatment of the patient, the subject of this lecture, gave rise to much discussion. Many urged that if I thought there was a stone in the common duct setting up simple cholangitis, I ought to have suggested an operation, but the following reasons prevented my doing this. If the case had been portal pyæmia or suppurative cholangitis both of which were possible, an operation could do no possible good; if, on the other hand, the case was one of simple infective cholangitis we could safely wait to see what course the malady would take, for this disease is very chronic, and bad as our patient was she never, as far as her general strength went, appeared to lose ground. Then, too, it is a very difficult operation, especially when the liver is very large, to remove a stone from the common duct. In the case I have just mentioned, matting prevented Mr. Lane from even reaching the common duct. Out of Osler's eight cases two were operated upon and both died. Waring quotes Jourdan, who says that out of seventy-two cases operated upon and published up to 1895, twenty-two died, and when you remember the inevitable tendency for more successful than unsuccessful cases to be published I should think that represents a mortality of about 50 per cent. Then, again, gall-stones are usually multiple, and even if you remove the offending one, and any there may be in the gall-bladder, others will probably be formed later and passed

down the duct. So that while I would most certainly not say that operation is never desireable, it is very important that you should hesitate for some time before embarking upon such a very difficult and dangerous operation. Probably you never ought to do it if the patient is keeping her ground, for there is always the possibility that she may pass the gall-stones into her duodenum. That fortunate result occurred in our case; when you see the size of the stones she has passed, you will agree with me that her common duct is now probably sufficiently large to admit of the passage of subsequent stones, and as she wrote to me only yesterday, and appeared from her letter to be in good health and able to be up and about at her household duties, you will see the justification of our not having advised operation. Since she left the hospital she has passed one other gall-stone without much difficulty. The course we adopted of relieving pain, keeping the bowels open, and maintaining her strength, appears to be justified by Osler's figures for of his eight cases, two died after operation, two died from the effects of having long-continued jaundice, three recovered without operation, and one passed out of observation.

To sum up, while I am far from saying you should never advise operation, you should always watch the case before advising it, and do not advise it if the patient is not losing ground. If you recommend it and it rests with you to select the surgeon, do not do the operation yourself unless you are a skilful surgeon, for it may be very difficult.

The last point we have to consider is whether we can give directions that will prevent the further formation of gall-stones.

If she were a well-to-do woman likely to carry out directions, it would be advisable to tell her to take light, easily digestible food, for although many authors think that gall-stones depend upon diet this is unlikely, for if it were so we should hardly expect them to be five times as common in women as men, therefore no special dietetic directions are necessary. She should not lace tightly, for that may damage the gall-bladder and inflammation of its lining membrane may certainly cause gall-stones. She should take plenty of exercise, probably horse exercise is particularly efficacious. A month's visit to Carlsbad every year to drink the waters and put herself under the strict regimen in force there is certainly a good thing and may lead to the passage of gall-stones. The Carlsbad waters are warm waters containing for their chief ingredient sulphate of sodium, and therefore it will be well to keep the bowels open regularly with them even in England. For this purpose about six fluid ounces of the imported water with an equal part of warm water, sipped while dressing, usually ensures an easy action of the bowels. If this is not powerful enough the requisite quantity of Hunyadi Janos or Æsculap water—each of these contain sodium sulphate and magnesium sulphate—may be added. Carlsbad salts are sold, which, when dissolved, imitate Carlsbad water.

Many believe that the administration of olive oil aids the solution of gall-stones, and this is quite possible, for it has been shown that ordinary gall-stones, that is to say, those composed of cholesterin and bilirubin calcium, are soluble in olive oil or oleic acid at the temperature of the body, and it has also been shown that this oil is, after absorption, excreted by the bile. I certainly think I have noticed that patients are better for taking it. The worst of it is that some patients loathe it; on the other hand many like it. From five to ten ounces should be taken every day, and it can be well mashed up with potatoes or fish, or it may be drunk neat, or some find that the addition of four grains of menthol and half an ounce of brandy to eight ounces of oil takes away the unpleasant taste. If it cannot be borne by the mouth it may be given per rectum. Be sure that real olive oil is given. Most of the olive oil in the market does not come from the olive.

Hospital News.

CLASSIFIED LIST OF CASES.

In the Medical Wards.

CASES UNDER DR. PYE-SMITH.

MARY	26.	Chlorosis.
	28.	Loss of power in left leg. ? Hysteria.
	30.	Rheumatism. Pericarditis.
	33.	Mitral incompetence.
	35.	Œdema with anæmia. ? Thrombosis.
	36.	Abdominal tumour, probably carcinoma. Secondary deposits pressing on aorta.
PHILIP	21.	Mitral regurgitation. Ascites. Albuminuria.
	24.	Phthisis.
	25.	Enteric fever.

PHILIP 30. Diabetes mellitus.
32. Chronic bronchitis with empyema. Arteritis with fusiform aneurysms.
36, 40. Acute regurgitation.
38. Eczema.

CASES UNDER DR. TAYLOR.

MARY 38. Granular kidney. Chronic anæmia.
39. Enlarged liver. ? Gall-stones.
45. Mitral stenosis. Tricuspid regurgitation.
STEPHEN 1. Acute nephritis.
5, 20. Mitral stenosis.
11. Acute rheumatism. Mitral and aortic regurgitation.
15. Enterica.
17. Mitral stenosis and regurgitation.

CASES UNDER DR. PITT.

MARY 2. Mitral and tricuspid regurgitation.
3, 12. Mitral stenosis.
4. Acute rheumatism. Mitral stenosis.
5. Acute laryngitis.
6. Traumatic hysteria.
7. Phthisis.
10. Right pleuritic effusion. ? Cause.
11. Mitral stenosis. Right pleuritic effusion.
52. Acute lobar pneumonia.
STEPHEN 21, 34. Acute rheumatism.
22, 32. Typhoid.
23. Chronic peritonitis.
24. Acute nephritis.
26. Chronic interstitial nephritis.
28. Phthisis.
29. Gangrenous appendix. Operation.
35. Aortic incompetence.
37. Purpuric erythema. Urticaria.
38. Œdema.
39. Right pleuritic effusion.
40. Venous thrombosis.

CASES UNDER DR. WASHBOURN.

MARY 17. Granular kidney. Uræmic dyspnœa.
18. Chronic tubal nephritis.
19. ? Pernicious anæmia.
20. Phthisis. ? Rheumatoid arthritis. ? Tubercular synovitis.
21. Carcinoma of liver.
PHILIP 2. ? Splenic anæmia.
7. Cerebral hæmorrhage.
12. Empyema.
16. Perihepatitis. Ascites.
17. Mitral disease. Tricuspid regurgitation. Adherent pericardium.
19. Pleurisy.
20. ? Abdominal aneurysm. Malignant disease.

In the Surgical Wards.

CASES UNDER MR. HOWSE.

NAAMAN 4. Iliac abscess.
6. Old hip disease. Excised 1897. Sinus.
9. Orbital cyst. Cystic nævus.
10. Otorrhœa. Antrectomy.
12. Tuberculous abscess from caries of sternum.
17. Tuberculous testis. Castration.
18. Suppurative arthritis of knee. Incised and drained.
CHARITY 13. Mammary cystoma with intracystic growth. ? Sarcomatous. Excised.
14. Chronic mammary abscesses. ? Tuberculous. Excised.
17. Sinus after nephrectomy.
20. Cystic adenoma mammæ. Excised.
Cot C. Strumous dactylitis.
ASTLEY COOPER 17. Æt. 11. Dislocation of elbow with T-shaped fracture of humerus.

CASES UNDER MR. DAVIES-COLLEY.

LUKE 6. Chronic palmar tenosynovitis.
8. Recurrent melanotic sarcomatous glands. Excised.
9. Hypospadias.
10. Stricture. Extravasation. Cock's operation.
11. Tuberculous knee and testis. Castration.
12. ? Charcot's disease of hip with dislocation. Sarcoma of femur.
13. Stricture.
15. Tuberculous testis. Castration.
LYDIA 6. Oophoritic cystoma. Ovariotomy.
8. Gummatous prepatellar barsitis.
21. Tuberculous axillary glands.
Cot B. Nævi. Excised

CASES UNDER MR. LUCAS.

JOB 1. Dentigerous cyst suppurating. Tooth extracted and cyst drained.
3. Old tuberculous hip, with abscess.
8. Acute glossitis and submandibular cellulitis.
9. Renal calculus. Nephrectomy.
22. Tuberculous testis. Castration.
24. Talipes equino-varus. Tarsectomy.
CHARITY 2. Œsophageal stenosis. ? Malignant stricture.
22. Cleft palate. Plastic operation.
LYDIA 10. Æt. 1½. Punctured fracture of skull. Meningitis. Trephining. Death.
12. Carcinoma mammæ. Excised.
13. Ruptured eyeball. Excised.
15. Strangulated femoral hernia. Gut gangrenous. Artificial anus formed.
ASTLEY-COOPER 19. Fractured femur. Hodgken.

CASES UNDER MR. GOLDING-BIRD.

LAZARUS	5.	Œsophageal stricture. Malignant.
	9.	Ulcerative colitis.
	11.	Stricture with cystitis.
	12.	Enlarged prostate. Retention. Suprapubic drainage.
	15.	Acute gonorrhœal cystitis.
	19.	Paresis of right arm three years after trephining for a depressed fracture.
MARTHA	1.	? Infantile paralysis.
	2.	Suppurating sebaceous cyst. Excised.
	3.	Otorrhœa and mastoid abscess.
	4.	Tuberculous stricture of rectum.
	10.	Lupus of face.
	17.	Bilateral synovitis of knee with fatty fingers. Drained.
	20.	Tuberculous stricture of rectum. Inguinal colotomy.
	22.	Epithelioma of back.
ASTLEY COOPER	22.	Fractured pelvis.
	24.	Supracondylar fracture of femur (æt. 14).
CORNELIUS	12.	Epilepsy. Fractured nasal bones.
	15.	Displaced semilunar, with synovitis.

CASE UNDER MR. JACOBSON.

VICTORIA	2.	Hydronephrosis. Nephrectomy.
	3.	Moveable kidney. Nephrorraphy.
	Cot.	Renal sinus. Nephrectomy.
NAAMAN	20.	Renal calculus. Nephrolithotomy.
	22.	Chronic hydrocele. Castration.

CASES UNDER MR. SYMONDS.

LUKE	17.	Recurrent rodent ulcer. Chronic septic adenitis of cervical glands.
JOB	10.	Sarcoma of tonsil. Excised.
MARTHA	14.	? Sarcoma of nose. Removed.
	15.	Cystic thyroid. Enucleated.

CASES UNDER MR. LANE.

VICTORIA	3.	Malignant disease of pancreas. Biliary obstruction. Gall-bladder drained. Death.
JOB	12.	Appendicular abscess.
	13.	Undescended testis and congenital hernia.
	14.	Trigeminal neuralgia.
	15.	Necrosis of ulna. Bone transplanted.

CASES UNDER MR. DUNN.

SAMARITAN		Stretcher. Extravasation of urine.
LAZARUS	1.	Psoas abscess.
	2.	Recurrent appendicitis.
MARTHA	11.	Hydrocele of hernial sac. Excised.
	Cot C.	Æt. 3 years. Sarcoma of testis. Castration.

Correspondence.

To the Editor of GUY'S HOSPITAL GAZETTE.

A Correction.

DEAR SIR,—While we are greatly obliged to you for the excellent notice which you were good enough to give us on our new bandages, we would like to draw your attention to a little error which occurred regarding the prices. When the prices were given at your request, we understood it was for deliveries to the Hospital direct and not to medical men; we find, however, that we cannot maintain even for large quantities these prices. We have, however, made up a price list which we shall be pleased to send to the profession on application, together with a sample of the bandages.

If not troubling you too much, we should feel greatly obliged if you could make a note of this error in an early issue as we had a lot of enquiries and even orders from medical men, and had to write to them all explaining the error. Thanking you in anticipation, we are, dear Sirs, yours truly, A. & M. ZIMMERMANN.

December 5th, 1898.

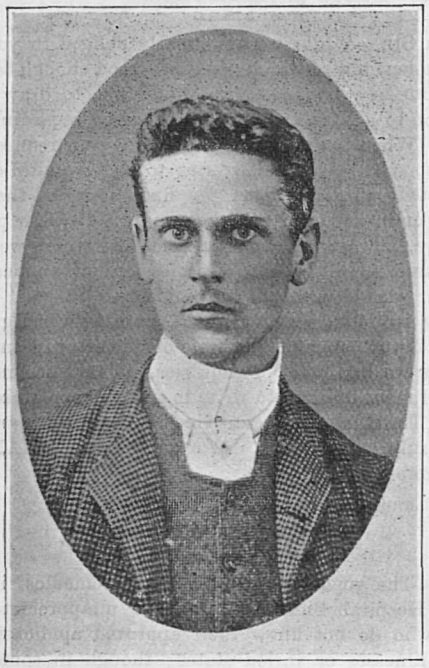
Guy's Pharmacopœia.

SIR,—The vogue of many popular remedies, in the Guy's Hospital Pharmacopœia, are unappreciated by those who do not know their approved application in divers illnesses or varied states; though in some particulars they may be familiar enough. Now it seems to me, that if it were possible to give or add some clue or short notes, when and in what disease the various remedies are more frequently used and requisitioned, it would enhance the value of this sort of pocket guide and remembrancer. It would put present and old students in touch with progress in treatment, just in the same way that case-taking forms give him the clue to observation in disease.

Is it too much to suggest, that, it could form the subject of successive articles, dealing seriatim with the pharmacopœal formulæ in your eminent GAZETTE? I fancy this would be a boon to many and be in the nature of marks, whereby those who run may see, and quickly help to unriddle the use of the special preparations. As useful novelties, I would like to know how to prepare a Liq. Pilocarpinæ, a Julep of Marshmallow, or a Liquid Ext. Lactucæ, as bland vehicles for, say, stomach remedies, and an Elixir alike miscible for acid and alkaline mixtures.

Knowing the reserve of Carlyle's belief in nothing new, and that we can only relook for the good things, it is little in this direction that can be claimed, and I can only rely on not having exceeded your customary limitations in pressing this communication to your notice.—Yours, etc., H. ELLIOT-BLAKE.

Surgeon William Job Maillard, V.C.



From a photograph when a student.

Photo by WEST, GOSPORT.
(Reproduced by kind permission of the Daily Graphic).

IT is with especial pride and pleasure that we have to chronicle the decoration of Surgeon W. J. Maillard, R.N., with the Victoria Cross. The following is the act of courage for which he was recommended:—On September 6th, 1898, during the landing of seamen from H.M.S. *Hazard*, Surgeon Maillard, who had disembarked and reached a place of safety, returned through a perfect storm of bullets to the boat, and endeavoured to bring into safety Arthur Stroud, ordinary seaman, who had fallen back wounded into the boat as the other men jumped ashore. Surgeon Maillard failed to bring Stroud in, only through the boat being adrift, and it being beyond his strength to lift the man (who was almost dead) out of so unstable a platform. He remained with the man, however, as long as there was any hope, though he was all the time a target for a close and heavy rifle fire. Eventually Surgeon Maillard returned to his post with his clothes riddled with bullets, though he himself was unhurt.

The whole incident was an experience which few men would care to go through, and as Surgeon Maillard remarked himself when up at Hospital on Tuesday, he was very glad to get out of it as the Mahommedans were firing Martinis at him from a distance of about forty yards. His escape seems little short of a miracle. He was recommended at once in the dispatches as deserving the Victoria Cross, and the decoration was announced in the *London Gazette* of December 2nd. Last Thursday Surgeon Maillard travelled to Windsor and received the coveted honour from the hands of Her Majesty the Queen.

W. J. Maillard matriculated at the London University in January, 1882, from New Kingswood School and Dunheved College, and entered Guy's in October of the same year. His career at the Hospital was uneventful, and as he left as soon as he was qualified he held no post higher than that of dresser, dresser that is under the old régime. He dressed to Mr. Symonds and Mr. Bryant. Maillard qualified in 1888 and entered the naval service in 1889. Two years later, in 1891, he passed his M.D. and qualified for the Gold Medal in Medicine, a most creditable performance for a man with naval duties besides his regular work. Last year he was appointed Surgeon to H.M.S. *Hazard*, on which boat he remained till the occasion of his winning the V.C.

Passim.

The decoration of Surgeon Maillard, R.N., with the Victoria Cross has given rise to a universal chorus of appreciation and praise for his conspicuous bravery in Crete, which has resounded all over the country, but the reward he so thoroughly deserved has been received nowhere with such keen pleasure as at Guy's, where the memory of the quiet, unassuming man is still green, especially among the junior members of the Staff, some of whom were his contemporaries. We are enabled to-day to publish two photographs of Surgeon Maillard—the first as men at Guy's knew him, the second a photograph taken quite recently.

The last Guy's man to receive the V.C. was the late Surgeon-Major John Frederick McCrea, upon whom it was conferred by the Queen for bravery during the engagement at Tweefontein, in the Basuto War of 1881. Surgeon-Major McCrea died in August, 1894, and an obituary notice appeared in the Gazette of September 8th, 1894. We believe, however, that the V.C. conferred upon Surgeon Maillard is the first yet won by a naval surgeon.

There are still some Christmas cards to be obtained from the Librarian, but those who wish to get them had better apply early, as the supply invariably runs out in the week before Christmas. The labour that is saved by getting the Gazette cards in preference to seeking unsatisfactory and expensive ones outside will, we think, more than compensate for the fatigue of a walk across the quadrangle to the Library.

That historic pageant, the procession of the Niggers round the wards, to the accompaniment of seventeen teas in different places, will again take place this year, but as Christmas Day falls on the Sabbath, the annual cake-walk will be postponed till Monday, on which day Mr. Landon's monster feed to children in Out-Patients' will also be consummated. We appeal again, as every year, but no doubt in vain, to those kind members of the nursing staff who provide tea, not to give the Niggers too much cake, as it spoils their appetite for dinner and makes them noisy afterwards.

The *Daily Telegraph* had a magnificent opening for a touching leader last week, and duly availed itself of the opportunity. One William King, of New Redford, Massachusetts, U.S.A. (note the address), is, according to the *D.T.'s* correspondent, credited with two hearts, and he has been examined by Dr. Munroe Long, of the Muhlenberg Hospital Staff—a physician of high repute, who vouches for the authenticity of the account. This King plays pretty tricks with his heart; he frequently "drops his left-hand heart into his iliac fossa, where the doctor clearly heard the beating," or in a whimsical mood he drops the other into a similar position, when, as the *D.T.* poetically remarks, "both could be heard executing their pulsatory duet in unison."

To continue to quote from this matchless account, "Still more remarkable was his power of drawing down at will a complete 'wall of bone' from the neck downwards, apparently like the iron sliding shutters which are let fall over a shop front. This osseous shutter is nothing less than a 'second sternum,' moveable at pleasure"—we presume with a spare set of ribs attached to it on each side, though the report does not say so, but packed up neatly behind "the regular breast bone when in repose." But then the *D.T.* goes on to talk about the "darts of Cupid," so we are reluctantly compelled to close our extract from this ingenuous journal. The *Daily Telegraph* should surely not poach upon the preserves of the "Wide World Magazine."

We have just received the report of the Clinical Research Association for 1897–1898, which is going ahead at a great pace. During this period 19,475 specimens have been received by the Association for examination and report. The conveniences and advantages which entail upon members in private practice are too well known to repeat, but if any Guy's man does not belong, we should advise him to communicate with the Association, at 1, Southwark Street, Borough, and get this year's report.

Little need be said about our game with Catford Bridge, as with the exception of Evans at back, and the three-quarters, the side was very much off colour, lacked their usual dash, and was evidently out of condition.

It is true a little luck would have given us a win, and quite as true that our opponents were unlucky in not scoring on one occasion.

The back, G. Evans, is proving a great acquisition to the side, and played as well as usual. He must get his kick in more quickly. We were very fortunate in getting Alexander to play at the last moment. He was a great service to us. Sime and Rae did a deal of work, but Wilkes was not called upon on many occasions.

We are sorry to hear O'Brien fractured his right clavicle during the game, and as his accident occurred early in the second half, it accounts completely for our rather poor show at half-back.

The forwards seldom got the ball, and once when they did, one of our men would kick it back to our opponents' pack. They showed an utter lack of dash, and their game was a complete contrast to their display a week earlier at Blackheath.

The Association XI. have been knocked out of the Surrey Senior, having lost to Ewell by 3 goals to 1, Ewell having a very fine team. The eleven made up for this defeat, however, by beating Reigate Priory on their own ground by 3–1, though our men were playing one short, and this has proved a fitting conclusion to a successful half-season. The eleven have played nine games, of which they have won four, lost three, and drawn two.

The Christmas Picture given away with the Gazette this week is a reproduction of an interesting engraving drawn early in the 18th century. It shows Guy's as originally built, without the two side wings now encompassing the Quandrangle, the Chapel one side and the Treasurer's house on the other. The original belonged to Mr. Lushington, the late Treasurer, but on his retirement he presented it to the Clubs' Union, and it now hangs in the Club Reading Room.

Until last Saturday week the combined hospitals had never succeeded in beating Blackheath, although on two or three occasions they had gone very near doing so. It was as long ago as the end of the eighties that "the Club" last went under to any team of Guy's men, and we believe we are right in saying that on that occasion it was to our most recently appointed assistant-physician that the chief credit of that victory was due. Saturday's game was, perhaps, not a great one from a spectator's point of view, but it was as keen a fight as any could wish to see. The hospitals, contrary to expectation, beat the home forwards for the greater part of the seventy minutes. Only during the last quarter of the first half did the Blackheath pack show any superiority, and during most of the second half they were really badly beaten. It was in a great measure owing to their forwards that the hospital backs were unable to show up so prominently, and with a very little luck two if not three more tries would have been registered.

And now, this being our last issue this year, we have to wish all Guy's men a Happy Christmas, and thank all readers for the kindness which has been so universally shown to the Gazette in its healthy, but often dull, uneventful progress in the year 1898.

Ward Concerts.

"Can you sing?" "Who can sing?" "Will he sing?" "No one sings." "Are they going to sing?" "My cousin cannot sing." "I do not know any one who can sing." "The brother of my friend might sing." "When will he sing?" "They will not sing."

These are not, as might be supposed, extracts from Professor Ollendorf's new system of learning German, but stray fragments of the conversation which takes place, for a limited number of nights only, after dinner in the Charity's room. Other words, it is true, are said, but they are not suitable for publication in this journal. The upshot of the whole matter generally is that this or that ward concert cannot possibly take place unless the three persons who have promised to assist can each be responsible for six items on the programme, and will moreover undertake to play their own accompaniments.

Under these circumstances it might be imagined that ward concerts do not usually take place, but as a matter of fact experience proves that they do, which only shows how careful one must be in giving a prognosis based on the severity of the initial symptoms. Many people, reflecting on the fact that there is a certain sameness about ward concerts, have expressed an opinion to the effect that they are unnecessary and somewhat tiresome institutions. Some have suggested that they should be abolished, asking, with a show of reason, why should we take so much trouble in order to hear the same men sing the same songs six times over in as many different wards. It does indeed seem curious; but I am inclined to agree with an ingenious friend of mine, who suggested with no little diffidence that a cause might be found by applying what is called, I believe, the "Historical Method." His view was that ward concerts were originally instituted for the benefit of the patients, and that as most of these were not able to move about from one ward to the other, the fact that a concert on practically the same lines was to be given at the other end

of the Hospital on the following day, did not materially affect their appreciation of the one then going on in their own ward. Personally, I am inclined to think that there is a basis of historical truth in this view.

Ward Concerts are usually preceded by a short prodromal stage, during which Chinese lanterns are lighted, little tables covered with white tablecloths, and decorated with chocolates and shaded candles. Those who have lighted the lanterns then turn down their cuffs, remove several ounces of wax from their trousers, endeavour to wash their hands in the chocolates (the ward basin having been removed and its place taken by these articles), put their coats on and await the arrival of the *artistes*.

The concert itself is ushered in by an initial rigor in the shape of a pianoforte duet, with an *obbligato* formed by the "settling down" process which takes place among the audience during this item. Both the performers then hurry off to play accompaniments in other wards, and the concert proceeds. That is to say, supposing always that the tenor can find his music. Usually he cannot, and a lengthened search is made in all the most unlikely places, until it is seen by one of the patients on a bed near the piano.

A notable symptom which occurs usually in the middle of the concert is the Interval. At this period all the male portion of the audience rise in a body and crowd together into the middle of the ward, when they proceed to spill hot tea over one another in frantic haste.

The second part generally contains a recitation. Recitations are of two varieties, humorous and sentimental; but the prognosis is really about the same in each. It is never well to betray much emotion during the first two minutes—as one cannot always tell at first into which category any given recitation is going to fall; it may, however, be taken as an axiom that recitations about races are *never* humorous.

It is customary to finish up a concert with "Auld lang Syne"—this song being chosen, I believe, because everybody knows the words, and can therefore join in comfortably.

Nursing News.

This week we have to record events for some time past since unfortunately the news for this column was delayed. It is with much sorrow that we have to mention the death of Probationer Hands. The news of her serious illness at the Western Fever Hospital was followed in a few hours by a telegram announcing her death. Nurse Hands had a bright, genial nature, which had endeared her to all her fellow nurses, and her loss is much felt. A large number of the nursing staff assembled at Fulham on the 29th ult. for the first part of the burial service.

On November 4th, Nurse Willes was transferred to Out-Patients, and Probationer Haughton made head nurse in the theatre. On the same date Nurse Rowell left to go to the Institution, and Probationer Helen Newton was made head nurse in Charity. On December 5th, Nurse Baker left to go to the Institution, and Probationer Jackson was made head nurse in Martha. On December 15th Nurses Bennett and Oyler left, and Probationer Jeffrey was made head nurse in Luke, and Probationer Woodward head nurse in Job. Nurse Willes and Probationer Finnemore have passed their examination in Massage successfully.

On November 21st, the Dorcas patients were moved into Queen Ward, and Miss Cotton became Sister Queen instead of Sister Dorcas. On the same day, Miss Traill was appointed probationary sister of Victoria Ward. Miss Traill holds a three years' Guy's Certificate, and has since acted for some time as sister of a ward at the Glasgow Children's Hospital. Before entering upon her appointment in Victoria Ward she passed the examination of the Obstetrical Society in midwifery.

GUY'S NURSES' RECREATION SOCIETY.

This will be a new and perhaps startling name to many of our readers, but we hope it will soon be a stirring reality for our Nurses. A small circle of those interested in healthful and pleasant variety and change in the lives of the members of our nursing staff have been very busily engaged lately in working out a splendid scheme, which has been laid before the members of our present clubs, and has been accepted by each of them with absolute unanimity of voting. A provisional council of representatives of the existing clubs has been formed, and will proceed to consider the development of the scheme.

The scheme comprises six clubs and societies, viz.—three now in existence, cycling club, tennis club, and choral society, and three to be started as soon as circumstances will permit—swimming club, gymnastic club, and literary society.

It is somewhat premature to state what the annual subscription to this society will be, but we are able to say with some confidence, that it will be sufficiently low to enable everyone who desires to do so to join. Soon after Christmas it is hoped there will be a largely attended general meeting of the nursing staff, and that by that time, it may be possible to announce the purchase of a suitable and good-sized recreation ground within easy reach.

Fuller particulars will be given after this meeting.

Chapel News.

There will be two Services of Preparation for Holy Communion on Saturday, December 17th, at 10 a.m. and 9.50 p.m., and on Christmas Eve at the same hours.

On Christmas Day the services will be as usual on Sundays. Carols after the evening service.

On Wednesday, December 28th (Holy Innocents' Day), Holy Communion 7 and 8.40.

Experiences of General Practice in London.

While another Guy's man has described with much detail, and I believe with great accuracy, the conditions and chances of practice in the country, I propose to give some personal experiences of general practice in London.

Some years ago I started to practise in a small street in a fashionable quarter, and I well recall the thrill of excitement I experienced as my brass plate was fixed late one dark evening. I remember being called early next day so as to be ready for my first patient. Alas! I waited months for him, and when at last he did turn up, I was out—at a place of entertainment of Imperial fame! Those were indeed weary days, and often I despaired of ever getting patients. Meanwhile I put in work at special hospitals, "devilled" for other practioners in other districts, and occasionally turned up in the Colonnade at Guy's to be congratulated by old friends on "practising in the West End!" A year of this sort of professional idleness disgusted me. One day the climax came to my first attempt in the West End. A little boy rang the bell and announced that the "brass-plate was dropping off the door." I took this as a sign from heaven, and soon after "shut up shop."

Then followed a year and a half "locum tenens" work varied by intervals of "rest." I wearied soon of both, and longed again to settle down but with some more permanent attraction to keep me steadily in harness, ready and alert. I tried "double harness," and as a respectable married medical man, made my second appearance in the "West End." Once more the old waiting game was tried, but this time the brass plate stuck firmly to the door and I kept close behind it, while a subscription to Mudie's and the special Hospitals gave me occupation for another year and a half. Truly I had tried the West End and found it wanting. No casual patients worth mentioning came, and our friends all had "a charming doctor they liked so much." That was a phrase I learnt to hate. I began to sicken of my profession. It was merely a "profession." Money always going out, so little coming in. One day a neighbouring practitioner proposed that I should buy the ruins of his practice. I consented, paid very dearly for it, and moved into his house. The first year I "took" about a third of the previous year's receipts, and that I hold is what everyone may expect who buys a practice in the West End. What I did, I consider was to buy a very expensive "nucleus," or shall I call it a "nucleolus?" Well, at last I had got "a practice in the West End," and this I set to work to slowly build up. Yes, slow indeed is the way for all of us who seek anything better than the "jug and bottle" line in competition with the prescribing chemist. About this time my friends began to show signs of friendship, and one having quarrelled with her doctor sent for me. The late practitioner went for his holiday and I was installed in his place. Time and Nature effecting a cure, I was proclaimed as having "saved her life." This happy event brought me several good patients, among them a rich American lady, the victim of "Nerves." This good lady had a wonderful house filled with all sorts of "objets d'Art," beautiful and hideous.

The most remarkable thing about the house was the bedroom. Here on a throne-like four-posted bed, of immense height, she would be "discovered," as the playwrights say. Around the bed was a carved barrier of white wood, hung with Eastern draperies, and at one point was an archway through which I gained access to my patient's bedside. A small staircase led up to the bed, and half way up this staircase I used to sit and talk with as much dignity as the position allowed! "Well, doctor," said my patient, on the occasion of my first visit, "You are the eleventh I've had, and if you fail I shall try a 'Christian Scientist.'" I believe I followed an eminent consultant, for whom a little pile of guineas was always kept ready. "He did nothing," I was told. I introduced that marvel of treatment the written régime. I made her live a rational life, and the result was success for a time. Then she went away to the seaside, and I lost her. Doubtless, the "Christian Scientist" has her in her clutches by now. From my American patient I got another, and from him a third, a foreign Baron, and literally a giant! Poor fellow, he had consulted all the leading physicians on the Continent about his hypochondriasis, and seeking further advice in England had been sent to me. I sincerely trust that my prescription of Mist. Acidi. Co. was good value for what he paid me.

This was all progress, but it was not brilliant. My observation teaches me that there is nothing brilliant about general practice in London. There appear to be two extremes of treatment here. In the case of a rich patient, you recommend change of air if you are conscientious, while in the case of the poor, you send him to the hospital with equal conscientiousness. There is little or no surgery in general practice in London. The poor and the middle class rush to the hospitals when maimed, while the rich seek the services of the consultants and specialists. In fact for any grave work the G. P. in London is but the jackal for the consulting lion.

Some foolish young men settle down in London under the impression that their friends among the consultants will send them patients, but this they soon find out to be a mistake. On the other hand, the consultant friend always expects you to give him consultations as a matter of course. *Dare quam accipere* is a good motto to remember sometimes! One comforting circumstance in London is that G. P.'s don't quarrel as much as they do in the country. The reason is that personal property in a patient is not an article of faith here. Patients change their doctors as they do their shops, and many end by going to the Stores—I mean the hospital!

In conclusion, my advice to anyone wishing to practice in London is this: Don't attempt it unless you have sufficient private means to pay all expenses for at least five years; make up your mind to wait a long time

doing nothing—but don't say so; make all the friends you can, and treat anyone for nothing rather than be without patients. The poor patient who does not pay will sometimes recommend one who does. The "God-reward-yous" are a large body of the community certainly, but they are not all ungrateful. One word more. London, by its very vastness, presents unlimited possibilities to the professional man. Here are the crowds, ever changing; here is the wealth, ever circulating; there is always a chance that in the future patience and energy may have their reward.

December 8th, 1898. F. V.

Notes from Corea.

It is difficult for a fresh comer in a foreign land to collect his many impressions and write them down so as to make a readable article, but as first impressions are often the most correct, and as my time will be more fully occupied in the future, I write now instead of postponing it until the novelty has worn off somewhat.

I did not wish in this to say anything about any other nation but the Coreans, but it is impossible to talk about Corea without mentioning the "Japs," for they seem to be ubiquitous. I liken them to parasites or locusts who, if they got the chance, would eat up the whole of Corea. A Japanese vessel takes you to Corea, unless you travel the longer way, via China. At Fusan, the first part of Corea one touches at after leaving Japan, the vessel anchors close to the Japanese settlement, the coolies are half of them "Japs," and to see the Coreans properly, and how they live, one has to walk along a rough track for about three miles to the old town of Fusan, which used to be a walled city, but it has now far outgrown the walls. It was in the old town that I saw a Corean funeral for the first time, the coffin was made of dried and plaited grasses, and was placed in the centre of the yard in front of the Corean hut, while the mourners, professional and sincere, kept up a continuous wailing seated round the coffin. After this had been kept up for half-an-hour or more a procession was formed; in front of the coffin was carried a small platform, upon which was placed a small quantity of rice and other articles of diet, this was followed by the coffin, placed in a covered bier, and carried by four to six men, the relations and hired mourners formed the rest of the procession; they wended their way along the narrow, dirty, main street, up to the hills where the Coreans are always buried. As I had already walked a good distance I did not feel sufficiently interested to follow them and see the remainder of the ceremony.

A mourner's costume calls for some description, as it is very striking. The material of which it is made is a kind of sackcloth; the usual tall, transparent, black hat is discarded for a round hat made of brown material, the cloak or "tourimaline" is of the same material, but the most peculiar thing about the costume is the mask which covers the lower part of the face up to the level of the nose. The mask was originally worn, I believe, to keep off the evil spirits which are supposed to be the cause of all illnesses.

After a pleasant thirty-six hours' voyage, between the numerous islands around the south coast of Corea, we arrived at Chemulpo in the early morning.

Chemulpo is also a favorite place for the Japanese, and they treat the Coreans shamefully when they get the chance, and it is amusing to see how the Corean boys are used for the purpose of carrying Japanese babies about on their backs.

There is a tremendous rise and fall of the tide at this port, and at low tide a stretch of mud is left extending two miles or more from the shore.

After a short stay of two days I went up to Seoul, the capital, to take charge of the medical work there for ten days, while Dr. Baldock went away for a short holiday. Dr. Baldock was also trained at Guy's, so now there are two old Guy's men in Corea. The short time I was in charge of the work at Seoul I had one operation on a man with a fracture-dislocation of the left elbow. I found the olecranon process was fractured in two places, so removed the whole of the process, as it had not united at all, although the injury occurred nearly a year previous, and the process also seemed to be the chief obstacle to full flexion of the joint.*

Tubercular disease, and especially that of bone, is very common. Ague is very rife. I have one case of sarcoma of the upper maxilla under out-patient treatment. It is too far gone for attempted removal, at least I should not care to make the attempt, especially as the skin is involved. A man came to out-patients whose right shoulder was dislocated, and had been out about two months. I failed to reduce it under chloroform, so sent him up to Dr. Baldock, at Seoul, who took him into the hospital, and will, I think, reduce it by the open method.

These short notes will give, I hope, some idea of the medical work we are doing here, for there is a great similarity between the out-patient work at Guy's and the work out here. As at home, "dirt" is the cause of many of the diseases one sees.

I arrived in Corea just at the end of the rainy season, so did not come in for the worst two months of the year. Ever since I have been here the weather has been perfect, the sun nearly always shining, and it is still quite hot, except at night, although we are near the end of October; they say there is no mistaking the winter when it does come, but it certainly has not come yet.

By next June we shall have a new hospital built, with out-patient department, operation room 16 ft. by 14 ft., and a ward 30 ft. by 16 ft., to accommodate ten patients; the two latter will both have concrete floors. We hope before the end of next year to have another wing added, making altogether an L-shaped ward, each wing being the same size, and also a house for the nurses.

Hoping this short article may be of some interest,

Church of England Mission, Corea,
October 24th, 1898. W. A. C.

* I have since heard that this man went out of the hospital, presumably cured.

Reviews.

Vol. I. *Infective Diseases of Animals.* Friedberger & Fröhner. (Translated into English by M. H. Hayes, F.R.C.V.S. W. Thacker & Co.). pp. 532.

The translator of this work, in his preface, makes the following remark, "Owing to the fact that the infective diseases of animals can in many cases be communicated to man, and that their occurrence in our meat and milk producers is a serious question of public hygiene, the present part of this translation will appeal to doctors as well as veterinary surgeons."

The publishers have certainly done their best to appeal to both these classes. The book is well got up and well printed with a good selection of type. There is, however, not much more to be said in favour of the work from the doctor's point of view.

So far as the book treats of the diseases of animals it appears to be good. The descriptions are clear and we hope correct. There are here and there passages which have obviously suffered in the translation. Especially is this to be seen in the scientific parts. It seems to us that it is not enough that the translator should know both languages, he should be familiar with the scientific thoughts of both. That this is not so in the present translation is painfully evident sometimes.

Three examples out of very many may be cited. "Kitt draws attention to the great similarity between malignant œdema and quarter-ill. The spread of the latter is, however, restricted within enzootic limits: but the bacilli of the former are ubiquitous, and show a characteristic thread formation." Does this mean that the bacilli grow from one country into another, or, being motile threads, wriggle their way thither? Speaking of the bacilli of quarter-evil, "Contrary to the behaviour of other bacilli, they can be stained by Gram's *solution*." As the statement stands it is not true. But allowing that it means what the translator intended it to mean (that the bacillus retains the stain after treatment by Gram's *method*), it is equally false, for we ourselves have succeeded in staining anthrax bacilli, not to mention hay bacilli, by this method. We are quite certain that Baumgarten would be astonished to hear that he had "proved by his experiments that the *human* bacillus of typhus could not be transmitted to rabbits, etc."

We have heard of a man being hit with a stick on the fourth of April, but it was news to learn that "anthrax attacks sheep generally in the apoplectic form."

Of several descriptions of diseases occurring in the human subject which we read, not one was correct. Typhus was called "famine fever." Dysentery is described as an infective *croupy diphtheritic* inflammation of the large intestine."

The bacteriological portion of the translation makes us think that the veterinary surgeons have a science of their own. It sounds somewhat anomalous that "the bacillus of malignant œdema may occur as a simple coccus," and that "the mother cell of a streptococcus is a short oval bacillus."

For the hygienist of the year 1898 the book is not worth reading. The French translation, we are told, has been adopted as a text-book on that subject in the French veterinary colleges. We shall be exceedingly astonished if the same happens to the English translation.

Rugby Football. (George Bell & Sons). By Harry Vassall and A. Budd.

The second edition of this book, which has been revised, has just appeared. It is as interesting as most of the books on Rugby football, is practical, and should be in the possession of "Rugger" men generally. The hints to players are limited to their requirements, and can easily be worked out and followed.

Medical Diaries. Messrs. Letts & Son have sent us some samples of their excellent Medical Diaries for 1899. Neat, handy, concise, and well-arranged, they are articles which every practitioner should possess if he requires a convenient and time-saving memorandum book. They are published in all forms and are very moderate in price, and can be obtained through any stationer.

Novelties.

MATERIA MEDICA, PHARMACY, ETC.

CADBURY'S COCOA.

FROM a dietetical point of view cocoa possesses, though in a milder degree, the properties of tea and coffee. The active principle, theobromine, is closely related to caffein, being dimethylxanthine $C_7 H_8 N_4 O_2$. Its physiological action is chiefly exerted on the muscular systems, and is a greater restorer of muscular activity than either thein or caffein. Cocoa stands apart from tea or coffee in the high nutritive power which its composition gives it. Containing, as pure cocoa does, twice as much nitrogenous matter, and twenty-five times as much fatty matter as wheaten flour, with a notable quantity of starch, it cannot be otherwise than a valuable alimentary material. It has been compared in this respect to milk. The adulteration of cocoa is chiefly in the direction of the addition of sugar and starch, which the microscope will detect; while by some the removal of the fat, so as to reduce it below 20 per cent., is regarded as an adulteration.

The various forms in which pure cocoa can be obtained in commerce are cocoa nibs, the seeds or beans roughly broken; flake cocoa, the same completely ground and crushed; soluble cocoa, the same freed from cellulose, and prepared cocoa, the same after half or more of its contained fat has been extracted.

Our attention has been drawn to Cadbury's Cocoa Essence. This article may be considered as the highest type of a pure cocoa. The special manipulation to which

it has been subjected (removal of a certain amount of fat, etc.) has resulted in the formation of a product which from practical experience we can say is most tempting to the palate, possesses high nutritive power, and that it exerts the property attributed to theobromine, of being a great restorer of muscular activity.

Sport.

Rugby Football.

GUY'S v. BEDFORD.

Played at Bedford, November 19. Guy's were without Trail, Ransford and others, but excellent substitutes were recruited from the Second XV. From the kick-off Guy's worked the ball into their opponents' twenty-five, and, after several good attempts by the backs, Rae scored a very clever try under the posts. O'Brien converted. A further try was soon registered by Wilkes, but Thomas's kick failed. Bedford played up well but Guy's forwards were giving a grand display, especially in the loose, and rushed the ball down the field on several occasions. Wall was very prominent and used his feet to advantage. He was ably backed up by Lawry and Cutler, who played his best game this season. No further score resulted before half-time, but Guy's continued to have the upper hand. The three-quarters tackled very safely, and did not give their opponents any opportunity of scoring, though on several occasions they looked dangerous.

In the second half Bedford pressed at the start, but Jackson broke through and got to the full-back. He was unluckily not backed up, and slipped in trying to dodge. After a splendid piece of work by Lawry, Cutler and Ayre-Smith, the ball was passed out to O'Brien who transferred to Rae, the latter scoring rather wide. The kick by Thomas was a freak. The result of an equally clever piece of work was only spoilt by Rae being pushed into touch in goal. Towards the end Wetherell was hurt and had to retire. Sime, however, made a grand dodgy run and scored between the posts. The ball was badly placed and no goal resulted. Result, Guy's 1 goal 3 tries; *Bedford nil.* Team:—

Guy's.—G. Evans (back); F. W. Sime, F. L. Rae, C. O'Brien, J. H. Wilkes (three-quarters); M. C. Wetherell, F. D. S. Jackson (halves); R. C. Mullins (capt.), A. A. Smith, H. A. Cutler, H. S. French, E. H. B. Milsom, R. C. Lawry, A. H. E. Wall and T. P. Thomas (forwards).

GUY'S v. OLD MERCHANT TAYLORS.

This match was played at Honor Oak on Saturday, November 26th, in very inclement weather, and resulted in a win for Guy's by 1 goal 1 try to 1 goal.

Mullins kicked off from the pavilion end, and play at once settled down in O. M. T's. quarters, who relieved by good kicking. Guy's forwards manifested a superiority at the outset which they maintained without cessation during the game. Three times during the first half O. M. T's. pressed by kicking high and following up, and once Marshall made an excellent attempt at scoring, but Sime almost immediately relieved and dribbled to within a few yards of our opponents' line. From a "scrum" under their goal, O. M. T's. who invariably heeled out in any position, paid the penalty, and F. E. Walker scored a smart try near the posts, which O'Brien converted. This was the only point scored in the first half.

The second half was more evenly contested, chiefly owing to the fact that one or two prominent Guy's forwards were unfortunate in their interpretation of the off-side rule. After some loose play one of the opposing half-backs broke through, owing to one of our centres forgetting that even half-backs have to be collared, and the back must take the wing. This omission and smart play by the other side made the scores one goal all. On continuing, the Taylors again pressed, but from a kick by Wilkes which the opposing full-back badly mulled, Rae obtained possession and scored under the posts by a run from half-way. The attempt at goal was abortive. From this point Guy's pressed and twice got over, but were called back. Nothing further occurred, and the game resulted as above. Our full-back was very good, but should stand further up. Team:—

Guy's.—G. Evans (back); F. L. Rae, F. W. Sime, A. O'Brien, J. H. Wilkes (three-quarter backs); F. E. Walker, F. D. S. Jackson (half-backs); R. C. Mullins (capt.), D. H. Trail, A. A. Smith, H. A. Cutler, K. V. Trubshaw, A. H. E. Wall, R. C. Lawry, T. R. Thomas (forwards).

GUY'S HOSPITAL v. ROYAL ENGINEERS.

Played at Chatham on Wednesday November 30th. Guy's took a somewhat weak team down last Wednesday, and got beaten by 1 goal and 2 tries to 2 tries. The tries for us were obtained by Sime and Bagshawe. Owing to the late start only twenty-five minutes were played each way. Team:—

Guy's.—G. Evans (back); F. W. Sime, J. N. Wilkes, H. V. Bagshawe and T. Morgan (three-quarter backs); M. C. Wetherell and F. D. S. Jackson (half-backs); D. H. Trail, A. A. Smith, H. A. Cutler, G. Shorland, K. V. Trubshaw, A. H. E. Wall, R. C. Lawry, and T. P. Thomas (forwards).

BLACKHEATH v. GUY'S and ST. THOMAS'S.

This match was played at the Rectory Field on December 3rd, and resulted in a win for the Hospitals by 1 goal 1 try, to 1 goal, a score which hardly represents the respective merits of the teams engaged, as the Hospitals had extremely hard luck on several occasions. Neither side was quite representative, but owing to the abundance of talent at the Hospital at the present time, we did not suffer in this respect so much as our opponents, as we see by reference to the daily papers that Blackheath were apparently without at least six of their usual three-quarters. Blackheath kicked off from the Charlton end, the Hospitals at once pressed and a score seemed imminent on more than one occasion, Rae once being held up when over the line. A free kick brought relief, and Blackheath getting into our twenty-five, Unwin was somewhat tamely allowed to score a try which was

converted. On resuming, the Hospitals, who were now playing magnificently, again pressed, and F. E. Walker made a splendid attempt at a goal from a mark by Rae. From the kick-out Blackheath did better, and their forwards showed more life, but the effort died away, and their backs with the exception of Russell being unable to hold Sime, we again resumed operations in our opponents' quarters, where Rae from a pass by Bateman, ran through and scored in a favourable position; Martin converted. Nothing important occurred to half-time, when the score stood at 1 goal all.

At the beginning of the second half play was more even, but soon the Hospitals pressed, and a very good piece of passing resulted in Hanbury getting over, but he was called back for pass forward. Soon after this Blackheath made a determined effort, and were in our quarters for some minutes, but one of their three-quarters losing the ball when he was tackled, allowed Sime, Walker, Ayre-Smith and Thomas to execute an excellent dribble, which resulted in the first-named scoring a try. The kick was unsuccessful. When the ball was again started it seemed that our opponents were tied up and the scoring about to begin in earnest, but Russell playing magnificently was chiefly instrumental in keeping the Hospitals out. Thomas at last got over with what certainly appeared a try, but that excellent referee, Mr. Harnett, entertained a different opinion. During this incident one of the Blackheath three-quarters unfortunately hurt himself, a fact which gave Blackheath the breathing time they sadly needed, and on resuming the play was of a much more even character so far as one could judge in the gathering dusk. Final score: Hospitals, 1 goal 1 try; Blackheath, 1 goal.

Remarks.—At full-back Evans played well for us, and with experience should become very good indeed; in the same position Russell for our opponents played a remarkable game, and rarely does one man save so many almost certain tries in an afternoon. At three-quarter there was no comparison between the sides, Sime being much too good for them, and O'Brien if he would only run further when he has broken through instead of passing at once, would make a very good centre indeed. Rae and Hanbury were also excellent. At half-back Blackheath were on paper strongly represented, but owing to the fine form shown by F. E. Walker the difference in this department was not noticeable. Our forwards were individually and collectively excellent. Though not nearly so heavy as the opposing eight, they broke up and got across the field splendidly. The tackling all round was up to its usual high standard, and the heeling left nothing to be desired. In the loose T. P. Thomas gave a skilful exhibition, and for all-round play Martin, Mullins, Trail and Ayre-Smith maintained the best traditions of hospital forward play. Team:—

Hospitals.—G. Evans (back); F. L. Rae, L. F. Hanbury, F. W. Sime, A. O'Brien (three-quarter backs); P. R. Bateman, F. E. Walker (half-backs); R. C. Mullins (capt.), J. F. Cunningham, A. E. Martin, J. C. Thompson, D. H. Trail, A. A. Smith, H. A. Cutler, T. P. Thomas (forwards).

GUY'S v. CATFORD BRIDGE

This match was played at Catford on December 10th, and ended in a draw, neither side being able to score.

Catford kicked off, and our forwards playing up well, the ball was almost immediately taken into the Catford territory. For a time it looked as if Guy's must score, both Rae and Alexander being almost in, but the good defensive play of the Catford backs prevented this. The Guy's three-quarter line which was greatly strengthened by the inclusion of Alexander, were at this stage greatly handicapped by the slow work done by our half-backs, and many good chances of scoring were lost. Towards the end of the first half the Catford forwards, playing with a good deal of dash and combination, took the play into Guy's twenty-five, but all danger was averted by Ayre-Smith intercepting a pass and running to the half-way flag before being collared. Half-time arrived soon after this without either side scoring.

On resuming, the Catford forwards played up splendidly, and our forwards losing a lot of their dash, the play during this spell was mostly confined to the Guy's half. The Catford forwards getting possession nearly every time and their halves being too smart for our men, our goal line seemed in great danger, and our defence was sorely taxed. By good collaring on the part of the three-quarters, and Evans at full back, however, they were able to keep the Catford men out, one of their backs being held up right on the line. Within the last ten minutes the Guy's forwards took the ball into the Catford twenty-five, and Rae almost scored. Time was called almost immediately afterwards, the game ending as above, which practically represents the form shown by the two teams, although the Catford team on the whole had slightly the better of the play. Team:—

Guys.—G. Evans (back); F. L. Rae, K. B. Alexander, F. W. Sime and J. H. Wilkes (three-quarters); A. O'Brien and C. W. Smyth (half-backs); R. C. Mullins, D. H. Trail, A. A. Smith, H. A. Cutler, K. V. Trubshaw, G. Shorland, A. H. E. Wall, T. P. Thomas (forwards).

Remarks.—The game was at times very straggling and our men missed good opportunities for scoring. With our three-quarter line it seems a pity that the ball did not come out to our backs more frequently. Coming to individual players, Evans at full-back played splendidly and hardly made a mistake, his kicking into touch and collaring being excellent. Just one thing we would like to suggest to him, and that is to get his kick in as quickly as possible and not wait for the opposing forwards to be almost on him before starting to run, as thereby he stands the risk of being collared, as happened on one occasion on Saturday. Of the three-quarters, Alexander and Rae were the best, Alexander's running, kicking and collaring is quite his old form. Rae is a much improved player, especially in defence, his collaring on one or two occasions being excellent. Sime did not play up to his usual form, nevertheless he did a lot of useful work. Of the halves, O'Brien did not at all seem used to the place although his punting into touch was very good. Watson-Smyth had evidently not recovered from his recent accident, and his form was nothing like it was earlier in the

season. The passing also was very slow and without any direction, in fact the passing amongst the backs was altogether too high and too slow, and might we suggest that it is not wise for the half-backs to pass out at once, immediately he gets the ball. Surely he could occasionally try and make an opening first.

Coming to the forwards, we must say that they appeared to be quite done at the end of the first half; this should not be, with Honor Oak Park so convenient, and the fine weather we have been having. Ayre-Smith certainly deserved to be commended for his fine following up; we should like to see at least three or four of the team with him. Of the others, Trail and Cutler seemed the best, the latter especially doing some good collaring. On one or two occasions our forwards, after getting the ball, certainly broke away without it. The first thing is to get the ball in the "scrum," the second, and almost equally difficult, is to keep it at the forwards' feet when breaking away.

GUY'S v. BECKENHAM.

This match, played at Honor Oak Park on Saturday, December 3rd, resulted in a win for the Hospital by 2 goals and 4 tries (22 points) to nil. Guy's lost the toss, and Lawry kicked off against a strong wind. Play immediately settled down in the Beckenham twenty-five, Guy's scoring five times in quick succession (Wilkes, Pierce (2), Louisson, Lewis). Pye-Smith converted one of the tries. Then the forwards, who had previously been getting out the ball rather well, began to slack, one or two of them appearing to use the scrum as a means of recovering wind. The ball was several times kicked forward by our men into the Beckenham pack. Towards the end, however, there was an improvement, and Lewis scored a good try which Pye-Smith converted. Shortly after no-side was called.

Remarks.—Jupp at back has played better, and should learn to find touch and follow up his kicks. Of the three-quarters, Pye-Smith was the best, and Louisson the better of the halves, but the latter keeps the ball too long when near his opponent's goal line. Jarvis' passing was distinctly poor. Several of the forwards were "winging" badly, Manson especially being conspicuous. There was no reason also why every one of the tries should not have been converted. Team:

Guy's.—E. D. Jupp (back); J. H. Wilkes, C. D. Pye-Smith, J. Lewis, F. J. Pearce (three-quarter backs); M. G. Louisson. D. Jarvis (half-backs); R. C. Lawry, A. H. E. Wall, G. Shorland, P. T. Manson, E. H. B. Milsom, B. Glendinning, C. J. Pinching, M. D. Wood (forwards).

GUY'S A v. LONDON & WESTMINSTER BANK.

Played at Denmark Hill on Saturday, December 10th, and resulted in a win for the Bank by 1 goal, 1 dropped goal to 1 try (Manson) (9 points to 3). Team;

Guy's.—E. D. Jupp (back); F. J. Pearce, C. D. Pye-Smith, H. V. Bagshawe, C. F. Witcombe (three-quarter backs); W. Jarvis, A. R. Thompson (half-backs); H. S. French, R. C. Lawry, P. T. Manson, E. H. B. Milsom, B. Glendinning, D. P. Watson, M. A. Collins, A. W. Gates (forwards).

Association Football.

EWELL v. GUY'S HOSPITAL.

Surrey Senior Cup, 2nd Round.

Played at Ewell, on November 29, and resulted in a win for the home team by 3 goals to 1.

Guy's won the toss and played up the hill, and as a consequence had to act on the defensive, but aided by a few occasional breaks-away, managed to prevent their opponents from scoring for about twenty minutes; but then a mistake by our backs, gave Porter an opening, who opened Ewell's account with a very soft goal.

After this Guy's had slightly the best of the exchanges, and ten minutes later Wiltshire wound up a fine single-handed dribble with a magnificent goal—the best bit of play during the game.

During the closing portion of the first half Ewell pressed continually, though playing one short, and managed to score twice, one being a very soft goal, and led at half-time by 3 goals to 1.

In the second half the play was very even, both sides missing many good opportunities of scoring. On no-sides being called the home team won a very disappointing game.

The forwards, with the exception of Wiltshire, were distinctly off colour, there was not the slightest attempt to combine; when our wings received passes from the centre they always made a hopeless mull of it, and generally lost the ball. But for Wiltshire's brilliant play we should have reached the Ewell goal on very few occasions. The half-backs were hopelessly at sea with the fast and tricky forwards opposed to them, and it was probably owing to this fact that we had to acknowledge defeat.

We are all sorry to see that Hall has returned to his old fault of dribbling too much for a half. However, we hope he will drop this and return to something like his old form, as of late he has certainly not been up to the mark.

The backs, but for two bad mistakes, played a very fine game, and to them the credit is due for not having a larger score run up against us.

Smith in goal gave a distinctly improved exhibition, and one or two of his saves were very fine. He has still a lot to learn, and must let his backs know when he is going to run out or when he is going to stop in goal. We might also mention, miskicks in front of goal are usually fatal.

GUY'S v. REIGATE PRIORY.

This match was played at Reigate, on Saturday, 10th. Guy's won the toss, and played uphill with the wind. A few minutes from the start Reigate scored through Bristone, Wiltshire immediately afterwards equalising with a swift, low shot. Half-time arrived with the score one goal all. Soon after the re-start Gray had to leave the field owing to an injury to his knee. Reigate now pressed, but from a break away Guy's obtained the lead, by a good shot from German. Play was now very even, but just before time Brydone scored a splendid goal. Guy's thus winning by 3 goals to 1.

Smith in goal played his best game this season, and if he only continues to keep this form we shall not complain. Both backs were safe and played a good game. The halves, paying more attention to passing and feeding their forwards, played a considerably better game than they did on the previous Saturday against Ewell. Of the forwards Wiltshire and Norton were perhaps the pick. Team:—

GUY'S.—F. M. V. Smith (goal); W. M. Robson, N, P. Shepherd (backs); R. W. B. Hall, H. F. German, J. M. Brydone (half backs); W. O. Roberts, H. C. Dent, H. P. Wiltshire, C. Norton, A. C. H. Gray (forwards).

The following is the result of the draw for the United Hospitals' Association Challenge Cup:—

1st Round	A. University v. London.
	Byes: Middlesex, St. Bart.'s, St. Mary's, St. George's, St. Thomas's, Charing Cross, Guy's.
2nd Round	B. Middlesex v. St. Bart.'s.
	C. St. Mary's v. St. George's.
	D. Winner of A. v. St. Thomas's.
	E. Charing Cross v. Guy's.
Semi-final	Winner of C. v. Winner of D.
	Winner of E. v. Winner of B.
Final	Winner of C. & D. v. Winner of E. & B.

The first round is to be played on or before January 21st.

"	second	"	"	"	February 4th.
"	Semi-final	"	"	"	February 25th.
"	Final	"	"	"	March 11th

United Hospitals Rifle Association.

The Annual General Meeting of the United Hospitals Rifle Association will be held in the smoking room of St. Bartholomew's Hospital on Wednesday, January 25th, 1899, at 5 p.m. It is hoped that members of the Metropolitan Hospitals interested in shooting, will urge their clubs to join the Association in the coming year.

The following hospitals have belonged to the Association for varying periods:—

St. Thomas's	St. Bartholomew's
Guy's	St. Mary's
Charing Cross	St. George's
The London	University College

King's College.

And it is to be hoped that some of these will rejoin the Association, as at present there are only four hospitals belonging to it.

At the General Meeting each hospital in the Association has two votes for the election of officers for the year. Also concerning the alteration of such rules as may be deemed necessary for the welfare of the Association.

The Hon. Sec. will be pleased to receive entries of any Hospitals not at present in the Association, also he will be pleased to forward to the secretary of the shooting club of any hospital, a copy of the revised rules 1898, and such other information concerning the Association as he may require. WALTON R. READ, Hon. Sec.

St. Bartholomew's Hospital, E.C.

THE LIBRARY GUY'S HOSPITAL

From the Gazette's Special Pathologist.

T. E. D. H., REIGATE.—No tubercle bacilli could be found in the sputum.

O., BLECHINGLEY.—The growth on blood-serum after incubation consists of a medium sized bacillus and some torulæ. The bacillus diphtheriæ was not found.

C. H., STREATHAM.—The growth on blood-serum after incubation is a pure culture of the bacillus diphtheriæ.

F. L. A., TUNBRIDGE WELLS.—There is no evidence of tubercle in this specimen. Foci of suppuration are scattered through the orbital fat.

W. A. E. W., RUGBY.—Tubercle bacilli are present in the sputum in fair numbers. PATHOLOGIST.

Appointments.

At a Court of Governors on December 14th, Mr. J. H. TARGETT was elected Assistant Obstetric Physician.

CIVIL.

BURT, W. C., L.R.C.P. Lond., M.R.C.S., has been appointed a Medical Officer for the Torrington Workhouse.

EARNSHAW, A., M.B. Lond., M.R.C.P., M.R.C.S., has been appointed a House Physician for the Bradford Royal Infirmary.

FULLER, W. A., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Cardiff Infirmary.

HICKS, H. T., M.R.C.S., L.R.C.P. Lond., has been appointed Junior Resident Medical Officer and Registrar for the Evelina Hospital for Sick Children, Southwark Bridge Road, London.

RICE, DAVID, M.R.C.S., L.R.C.P. Lond., has been appointed House Physician for the Bethlem Royal Hospital, London.

SELLS, HUBERT T., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health by the Northfleet Urban District Council.

TAYLOR E. CLAUDE, M.D., M.S. Lond., F.R.C.S., has been appointed a Medical Officer for the Hampstead Workhouse.

Births.

FIDO.—On November 29th, at "Raleigh," Arodene Road, Brixton Hill, S.W., the wife of H. Adamson Fido, M.R.C.S., L.R.C.P. Lond., of a son.

HUDSON.—On December 8th, at Vine House, Cobham, Surrey, the wife of Arthur B. Hudson, M.R.C.S., L.R.C.P. Lond., of a son.

Marriages.

BUSTEED-BOSE.—On December 8th, at St. Edward's, Romford, by the Rev. F. E. Allen, assisted by the Rev. G. L. Wallace, John Hancock Busteed, L.R.C.P., L.R.C.S., L.S.A., of Ellesmere, Shropshire, to Mabel Annie, second daughter of William Bose, of Balgroves, near Romford, Essex.

MICHAEL-HARVEY.—On the 7th December, at St. Paul's, Upper Norwood, by the Rev. R. B. Ransford, Vicar, Cyril Eden Michael, M.A., M.B., B.C., M.R.C.S., L.R.C.P., to Ada Ellen, widow of the late Henry N. Harvey, of Hayle, Cornwall.

Death.

CLEVELAND.—On November 24th, at Maida Vale, W., William Frederick Cleveland, aged 75 years.

ED.—H. L. E.